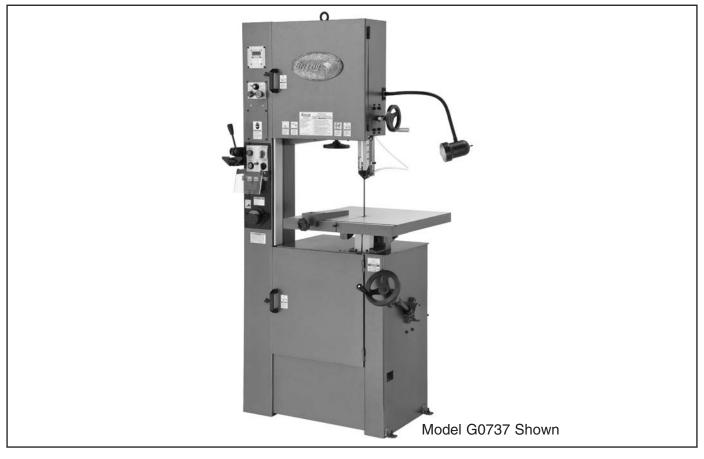


# MODEL G0736/G0737 VARIABLE-SPEED VERTICAL METAL BANDSAW

### **OWNER'S MANUAL**

(For models manufactured since 5/12)



COPYRIGHT © FEBRUARY, 2012 BY GRIZZLY INDUSTRIAL, INC., REVISED JUNE, 2012 (TS) WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC. #TS14540 PRINTED IN TAIWAN

# WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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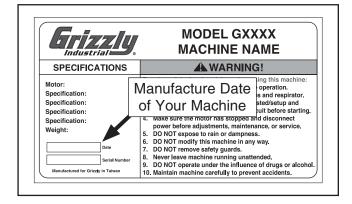
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### **Manual Accuracy**

We are proud to offer this manual with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes we still make an occasional mistake.

Also, owing to our policy of continuous improvement, **your machine may not exactly match the manual**. If you find this to be the case, and the difference between the manual and machine leaves you in doubt, check our website for the latest manual update or call technical support for help.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.



For your convenience, we post all available manuals and manual updates for free on our website at **www.grizzly.com**. Any updates to your model of machine will be reflected in these documents as soon as they are complete.

## **Contact Info**

We stand behind our machines. If you have any questions or need help, use the information below to contact us. Before contacting, please get the serial number and manufacture date of your machine. This will help us help you faster.

> Grizzly Technical Support 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

> Grizzly Documentation Manager P.O. Box 2069 Bellingham, WA 98227-2069 Email: manuals@grizzly.com

# **Cutting Overview**

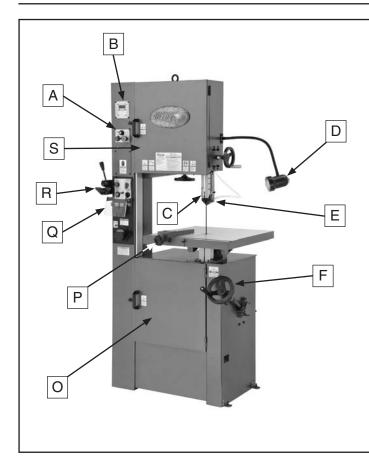
The vertical metal-cutting bandsaw has a flexible continuous blade that cuts in one direction. This type of bandsaw can be used for straight cuts, angular cuts, and curved or contour cuts. Straight cuts are made using workpiece fixtures and with a light, even pressure against the blade. Angular cuts are made with the table and workpiece tilted at an angle other than 0°.

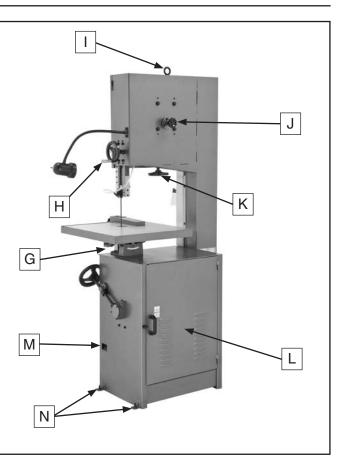
When an internal contour cut is to be made, a hole is drilled in the workpiece. The blade is then cut, fed through the hole in the workpiece, welded together again using the welding station, and reinstalled on the bandsaw to make the cut.

The welding station can also be used to fabricate new blades and repair broken blades.



## Identification





- A. Bandsaw Control Panel
- B. Blade Speed Digital Readout
- C. Upper Guide Post & Blade Guide Assembly
- D. Work Lamp (220V, 40W)
- E. Air Hose & Jet
- F. Variable Speed Handwheel
- G. Table Tilt Controls
- H. Guide Post Handwheel
- I. Lifting Eye Bolt
- J. Blade Tracking Knob

- K. Blade Tensioning Handwheel
- L. Motor Access Door
- M. Chip Chute
- N. Machine Mount Brackets
- O. Lower Wheel Door
- P. Fence
- Q. Blade Welding Station
- R. Blade Shear
- S. Upper Wheel Door



# **A**WARNING

To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.



# **Basic Controls**

Use **Figures 1–3** and the descriptions below to become familiar with the basic controls of the bandsaw before beginning operations. Being familiar with these controls will help you better understand the content provided in this manual.

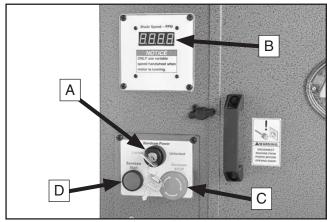


Figure 1. Bandsaw control panel.

A. Bandsaw Power Switch. Enables/disables power to the bandsaw motor. Can be disabled and locked with the key.

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Locking the bandsaw power switch DOES NOT disable the welding station functions. The machine must be disconnected from power to prevent the use of the welding station.

- **B.** Speed Digital Readout. Displays the current blade speed in feet per minute (FPM) of blade travel.
- **C.** Bandsaw STOP Button. Stops the power flow to the bandsaw motor. Twist the STOP button clockwise until it pops out to reset it and allow the use of the start button.
- D. Bandsaw START Button. Starts blade rotation.

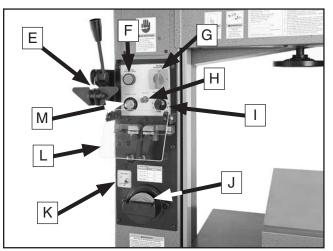


Figure 2. Welding station controls.

- E. Blade Shear. Cuts the bandsaw blade when making internal cuts or making blades from bulk stock.
- **F. Welding Power Lamp.** Illuminates when power is enabled to the welding station.
- **G. Welding Power Switch.** Enables/disables power to the welding station.
- H. Anneal Button. Allows the bandsaw blade to be tempered and cooled in a gradual manner, giving the weld strength and flexibility.
- I. Clamping Pressure Switch. Applies pressure to the cut ends of the bandsaw blade to ensure a proper weld as the metal melts.
- J. Grinding Wheel. Prepares the blade ends for welding. Removes the weld flash to make the joint flat on the top and bottom of the blade.
- K. Grinding Wheel Toggle Switch. Starts/ stops the grinding wheel.
- L. Welding Spark Guard: Protects the operator from sparks during the welding operation.
- M. Weld Button. Enables power to flow between the ends of the bandsaw material to form the weld.



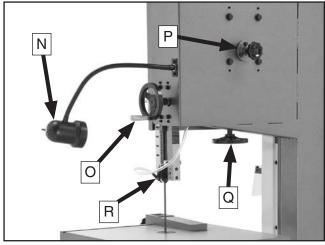


Figure 3. Additional controls.

- N. Work Light. Illuminates the work area to assist with safe and accurate cutting (220V, 40W bulb).
- **O. Guide Post Handwheel and Lock Lever.** Controls the height of the upper blade guide assembly and the air nozzle above the workpiece.
- P. Blade Tracking Knob. Controls how the blade rides or tracks on the wheels.
- **Q.** Blade Tensioning Handwheel. Adjusts the amount of blade tension—rotate clockwise (as viewed from underneath) to increase and rotate counterclockwise to decrease.
- **R.** Air Nozzle. Clears the chips away from the immediate cutting area. Air pressure is provided by a belt-driven pump.

### NOTICE

Only use variable speed handwheel when the bandsaw is turned *ON*; otherwise, damage to the bandsaw could occur.

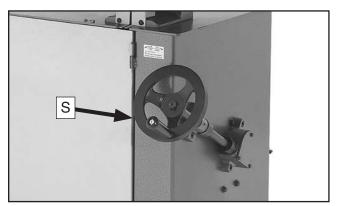


Figure 4. Variable speed handwheel.

**S. Variable Speed Handwheel.** Controls the Reeves-drive system to provide blade speeds of 75–385 FPM.





### MODEL G0736/G0737 VARIABLE-SPEED VERTICAL METAL-CUTTING BANDSAW

	G0736	G0737	
Product Dimensions			
Net Weight	732 lbs.	830 lbs.	
Width (side-to-side) x Depth (front-to- back) x Height	33" x 27" x 70"	39½" x 30" x 74½"	
Footprint (Length x Width)	17 <sup>1</sup> ⁄4" x 29"	18" x 32"	
Shipping Dimensions			
Shipping Weight	860 lbs.	970 lbs.	
Length x Width x Height	39" x 29" x 78"	43" x 29" x 83"	
Electrical			
Power Requirement	220V, 1-Ph	ase, 60 Hz	
Full Load Current Rating	11 Amps	12 Amps	
Minimum Circuit Size	15 Amps		
Switch	ON/OFF Push Button, Master Magnetic Switch w/Locking Key		
Switch Voltage	220V		
Recommended Power Cord	14 AWG, 3 V	Vire, 300VAC	
Recommended Plug/Receptacle	NEM	A 6-15	
Motors			
Bandsaw			
Туре	TEFC Capacito	r Start Induction	
Horsepower	1 <sup>1</sup> / <sub>2</sub> HP	2 HP	
Electrical	220V, 1-PH, 9 Amps	220V, 1-PH, 12 Amps	
Power Transfer	Variable-Spe	ed Belt Drive	
Grinding Wheel			
Туре	Open Drip-P	Open Drip-Proof Induction	
Horsepower	1⁄8 HP		
Electrical	220V, 1-PH, 0.75 Amps		
Power Transfer	Direct Drive		
Welder			
Electrical	220V, 2.4	KVA, 11A	



	G0736	G0737	
Operation Information			
Blade Speeds	Variable, 75	Variable, 75–385 FPM	
Standard Blade Length	120"	140"	
Blade Width Range	1/8"-	- <sup>5</sup> /8"	
Cutting Capacity			
Cutting Height	10"	10¾"	
Cutting Capacity Left of Blade	15"	18"	
Table Information			
Table Tilt	15° Left/Right,	15° Left/Right, 10° Front/Back	
Length x Width x Thickness	23 <sup>5</sup> /8" x 21	23 <sup>5</sup> /8" x 21 <sup>5</sup> /8" x 1 <sup>3</sup> /4"	
Floor to Table Height	3	39"	
Construction			
Table	Precision-Ground Cast Iron		
Wheels	Balance Cast Iron		
Wheel Tires	Rubber		
Body & Doors	Formed Steel		
Paint	Urethane		
Other Information			
Wheel Size	15¼" O.D.	18¼" O.D.	
Blade Guide Type	Steel	Steel Block	
Country of Origin	Taiv	Taiwan	
Warranty	1 Year		



# 

### For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



**Indicates an imminently hazardous situation which, if not avoided,** WILL result in death or serious injury.

**AWARNING** Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

**CAUTION** Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

### AWARNING Safety Instructions for Machinery

**OWNER'S MANUAL.** Read and understand this owner's manual BEFORE using machine. Untrained users can be seriously hurt.

**EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.

**HAZARDOUS DUST.** Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

**WEARING PROPER APPAREL.** Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips which could cause a loss of work-piece control.

**HEARING PROTECTION.** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

**MENTAL ALERTNESS.** Be mentally alert when running machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.



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**DISCONNECTING POWER SUPPLY.** Always disconnect machine from power supply before servicing, adjusting, or changing cutting tools (bits, blades, cutters, etc.). Make sure switch is in OFF position before reconnecting to avoid an unexpected or unintentional start.

**APPROVED OPERATION.** Untrained operators can be seriously hurt by machinery. Only allow trained or properly supervised people to use machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

**DANGEROUS ENVIRONMENTS.** Do not use machinery in wet or rainy locations, cluttered areas, around flammables, or in dark areas. Keep work area clean, dry, and well-lighted.

**ONLY USE AS INTENDED.** Only use machine for its intended purpose. Never modify machine for a purpose not intended by the manufacturer!

**USE RECOMMENDED ACCESSORIES.** Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

**CHILDREN & BYSTANDERS.** Keep children and bystanders a safe distance away from work area. Stop using machine if children or bystanders become a distraction.

**REMOVE ADJUSTING TOOLS.** Never leave adjustment tools, chuck keys, wrenches, etc. in or on machine—especially near moving parts. Verify removal before starting!

**SECURING WORKPIECE.** When required, use clamps or vises to secure workpiece. A secured workpiece protects hands and frees both of them to operate the machine.

**FEED DIRECTION.** Unless otherwise noted, feed work against the rotation of blades or cutters. Feeding in the same direction of rotation may pull your hand into the cut.

**FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed. **GUARDS & COVERS.** Guards and covers can protect you from accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly before using machine.

**NEVER STAND ON MACHINE.** Serious injury or accidental contact with cutting tool may occur if machine is tipped. Machine may be damaged.

**STABLE MACHINE.** Unexpected movement during operations greatly increases risk of injury or loss of control. Before starting, verify machines are stable and mobile base (if used) is locked.

**AWKWARD POSITIONS.** Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

**UNATTENDED OPERATION.** Never leave machine running while unattended. Turn machine *OFF* and ensure all moving parts completely stop before walking away.

**MAINTAIN WITH CARE.** Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. An improperly maintained machine increases risk of injury.

**CHECK DAMAGED PARTS.** Regularly inspect machine for damaged parts, loose bolts, misadjusted or mis-aligned parts, binding, or any other conditions that may affect safe operation. Always repair or replace damaged or mis-adjusted parts before operating machine.

**MAINTAIN POWER CORDS.** When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

**EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.



# Additional Safety for Metal-Cutting Bandsaws

**BLADE CONDITION.** Do not operate with dull, cracked or badly worn blade that can break during operation or decrease the performance of the bandsaw. Inspect blades for cracks and missing teeth before each use.

**BLADE REPLACEMENT.** Wear gloves to protect hands and safety glasses to protect eyes when replacing the blade. When replacing blade, make sure teeth face forward and down toward the table in the direction of blade travel.

**WORKPIECE HANDLING.** Your hands can be drawn into the blade during operation if the workpiece moves unexpectedly. Always keep your hands a safe distance away from the moving blade.

**FIRE HAZARD.** Use EXTREME CAUTION if cutting magnesium. Using the wrong cutting fluid will lead to chip fire and possible explosion.

**WELDING AND GRINDING SAFETY.** The welding station represents a serious burn hazard. DO NOT touch any metal parts of the blade, welder, or machine when activating the welder. Keep your hands a safe distance away from the grinding wheel when in use.

**HOT SURFACES.** Be aware that touching hot workpieces or chips after welding, grinding, or cutting can cause burns.

**CUTTING FLUID SAFETY.** Cutting fluids are poisonous. Always follow manufacturer's cuttingfluid safety instructions. Pay particular attention to contact, contamination, inhalation, storage and disposal warnings. Spilled cutting fluid invites slipping hazards.

**ENTANGLEMENT HAZARDS.** Always keep the blade guard correctly positioned and wheel doors closed and secured when bandsaw is in operation. Loose clothing, jewelry, long hair and work gloves could be pulled into the blade or moving parts, resulting in lacerations or amputation.

**MAINTENANCE/SERVICE.** Perform all inspections, adjustments, and maintenance with the power *OFF* and the plug pulled from the outlet to prevent unexpected start up. Wait for all moving parts to come to a complete stop before starting.

**UNSTABLE WORKPIECES.** Workpieces that cannot be supported or stabilized without a vise or jig should not be cut on a vertical metal-cutting bandsaw, because they can unexpectedly move while cutting and draw the operator's hands into the blade causing serious personal injury. Examples are chains, cables, round or oblong-shaped workpieces, workpieces with internal or built-in moving or rotations parts, etc.

# **WARNING**

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

# 

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# **SECTION 2: POWER SUPPLY**

#### Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by a qualified electrician in accordance with all applicable codes and standards.



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Electrocution, fire, or equipment damage may occur if machine is not correctly grounded and connected to the power supply.

#### **Full-Load Current Rating**

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

#### G0736 Full-Load Current Rating...... 11 Amps G0737 Full-Load Current Rating...... 12 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements in the following section.

#### **Circuit Requirements for 220V**

This machine is prewired to operate on a 220V power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage	220V/240V
Cycle	60 Hz
Phase	1-Phase
Power Supply Circuit	15 Amps
Plug/Receptacle	NEMA 6-15
Power Cord "S"-Type, 3-Wire,	14 AWG, 300V

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

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Serious injury could occur if you connect the machine to power before completing the setup process. DO NOT connect to power until instructed later in this manual.

**Note:** The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the circuit is properly sized for safe operation.

# **ACAUTION**

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.



#### **Grounding Instructions**

This machine MUST be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

The power cord and plug specified under "Circuit Requirements for 220V" on the previous page has an equipment-grounding wire and a grounding prong. The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances (see **Figure 5**).

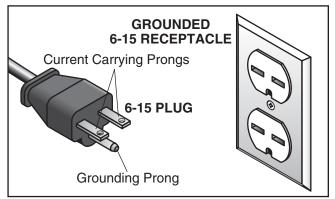


Figure 5. Typical 6-15 plug and receptacle.



Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

#### **Extension Cords**

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size ......14 AWG Maximum Length (Shorter is Better)......50 ft.

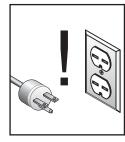




#### **Power Cord Installation**

The power cord used on this bandsaw must meet the circuit requirements provided on **Page 11**, unless otherwise deemed acceptable by applicable electrical codes.

To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



#### **AWARNING** DO NOT connect the power

cord to the power source during this procedure. Otherwise, electrocution injuries could occur.

#### **Items Needed**

(	3	t	V	

Power Cord "S"-Type, 3-Wire, 14 AWG, 300V,
6'–10' Long (see <b>Page 11</b> )1
Ring-Type, Clamp-On Wire Connectors,
16–14 AWG, #103
Wrench or Socket 8mm1
Phillips Screwdriver #21
Phillips Screwdriver #21

#### To connect the power cord to the machine:

1. Open the power connection junction box on the rear of the machine (see **Figure 6**).

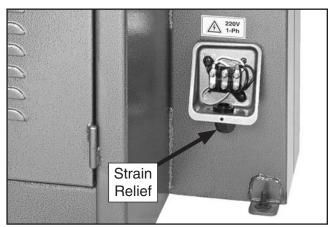
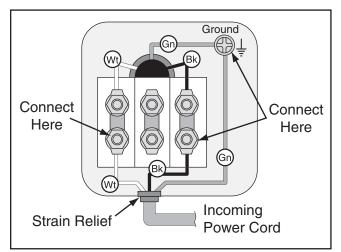


Figure 6. Power connection junction box opened.

**2.** Remove the plastic terminal cover.

- **3.** Thread the power cord through the strain relief.
- **4.** Attach the ring terminals on the ends of the power cord wires.
- 5. Secure the incoming ground wire to the ground terminal inside the junction box (see the illustration in **Figure 7**).





- 6. Remove the hex nuts on the bottom left and right terminal posts.
- Secure the power cord hot wires to the bottom left and right terminal posts, as shown in Figure 7, then secure them with the hex nuts you previously removed in Step 6.
- 8. Make sure the incoming wires have enough slack between the strain relief and connections so that they are not pulled tight, then tighten the strain relief to secure the power cord.

**Note:** The strain relief must be tightened against the outer jacket of the power cord. Avoid over-tightening the strain relief or it may crush the cord and cause a short.

- **9.** Test the strain relief to ensure it is properly tightened by pulling the cord from outside the junction box with light-to-moderate force. When the strain relief is properly tightened, the cord will not slide through the strain relief.
- **10.** Re-install the plastic terminal cover, then reattach the junction box cover.



### **Setup Overview**

The purpose of the setup section is to help you prepare your machine for operation. The list below outlines this basic process. Specific steps for each of these points will be covered in detail later in this section.

The bandsaw is a complex machine that requires a number of adjustments to operate safely and efficiently. Be sure to perform all of the instructions in this section in sequence.

#### The typical setup process is as follows:

- 1. Unpack the bandsaw and inventory the loose components.
- 2. Clean the bandsaw and its components.
- **3.** Move the bandsaw to an acceptable location.
- 4. Tension the blade.
- 5. Check/adjust the blade tracking.
- 6. Check/adjust the blade guide assemblies.
- 7. Connect the bandsaw to the power source.
- **8.** Test run the bandsaw to make sure it functions properly.

### **Needed for Setup**

The following are needed to complete the setup process, but are not included with your machine.

#### Description

Additional People .....1

Qtv

- Safety Glasses .....1 for Each Person
- Cleaner/Degreaser ..... As Needed
- Disposable Shop Rags.....As Needed
- Forklift (rated for at least 1000 lbs.).....1
- Safety Hook & Chain (rated for at lease 1000 lbs. each).....1 Each
- Floor Mounting Hardware <sup>5</sup>/<sub>8</sub>" ..... As Needed

### Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover any damage, *please call us immediately at (570) 546-9663 for advice.* 

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.* 

When you are completely satisfied with the condition of your shipment, inventory the contents.



### 

SUFFOCATION HAZARD! Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.



# Inventory

### Cleanup

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

Sm	all Item Inventory: (Figure 8)	Qty
Α.	Fence Lock Knob Bolt	1
В.	Fence	1
С.	Hex Wrench 10mm	1
D.	Hex Wrench 5mm	1

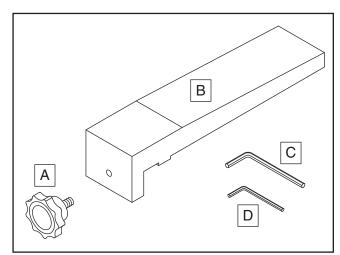


Figure 8. Loose component inventory.

### NOTICE

If you cannot find an item on this list, carefully check the machine and the packaging materials. Some of these items may be preinstalled for shipping or become misplaced during unpacking. The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

#### Before cleaning, gather the following:

- Disposable Rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

#### Basic steps for removing rust preventative:

- 1. Put on safety glasses.
- 2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
- 3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
- 4. Repeat Steps 2–3 as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

# NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

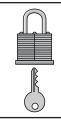


#### Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

#### **Space Allocation**

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.** 



# 

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

#### **Physical Environment**

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

#### **Electrical Installation**

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave access to a means of disconnecting the power source or engaging a lockout/tagout device, if required.

#### Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

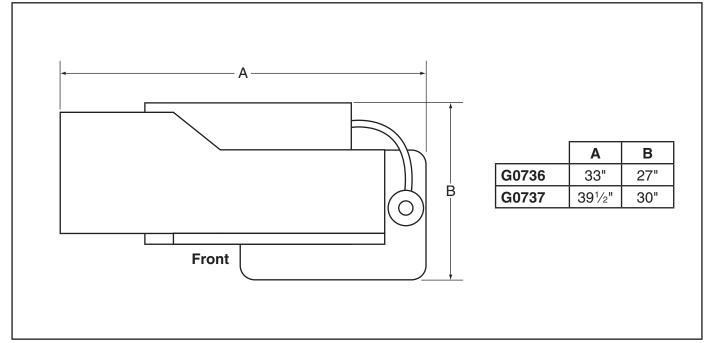


Figure 9. Minimum working clearances.

# Mounting

The bandsaw has four floor mounting brackets that accept 5/8" fasteners (see **Figure 10**).

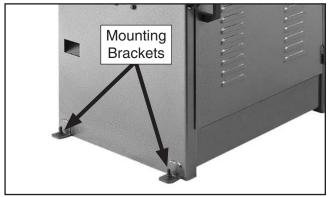


Figure 10. Floor mounting brackets.

Although not required, we recommend that you mount your new machine to the floor. Because this is an optional step and floor materials may vary, floor mounting hardware is not included. Generally, you can either bolt your machine to the floor or mount it on machine mounts. Both options are described below. Whichever option you choose, we recommend leveling your machine with a precision level.

#### **Bolting to Concrete Floors**

Anchor studs and lag shield anchors with lag screws (see **Figure 11**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

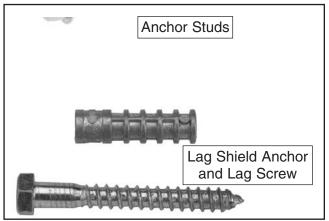


Figure 11. Typical fasteners for mounting to concrete floors.

### NOTICE

Anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.

#### **Using Machine Mounts**

Using machine mounts, shown in **Figure 12**, gives the advantage of fast leveling and vibration reduction. The large size of the foot pads distributes the weight of the machine to reduce strain on the floor.



Figure 12. Machine mount example.



# Lifting & Placing

### WARNING

This is a heavy machine. Serious personal injury may occur if safe moving methods are not used. To be safe, get assistance and use powered lifting equipment to move the shipping crate and remove the machine from the crate.

#### To lift and place the bandsaw:

- 1. Prepare the bandsaw operation site for machine placement (refer to **Page 17**) and electrical connection (refer to **Page 11**).
- 2. With the bandsaw still bolted to the shipping pallet, move it to the operation site, then unbolt the bandsaw from the pallet.
- **3.** Attach the safety hook and chain between the forklift and the bandsaw lifting eyebolt (see **Figure 13** for an example).

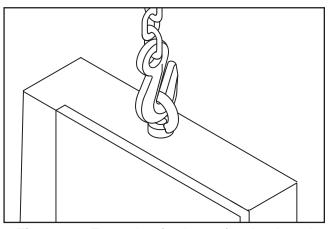


Figure 13. Example of using safety hook and chain to lift the bandsaw.

4. With the help from another person to steady the load, lift the bandsaw enough to clear the pallet, remove the pallet, then slowly place the bandsaw into position.

Except for the fence, the bandsaw is fully assembled at the factory.

Place the fence on the bandsaw table (see **Figure 14**), then thread the lock knob bolt into the provided hole to secure the fence to the table.

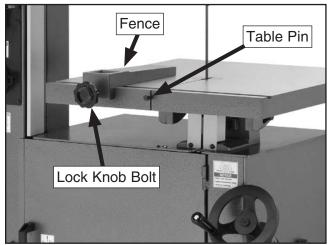


Figure 14. Fence installed.

**Important:** Make sure that the table pin is installed, as shown in **Figure 14**. The table pin prevents the front table halves from getting misaligned when heavy workpieces are loaded on the table.



### Tensioning & Tracking Blade

Blade tension directly affects blade tracking so it is important to adjust them together.

#### **Tensioning Blade**

Proper blade tension maximizes the life of the blade and bandsaw components, improves cutting performance, and reduces the risks related to blade breakage.

When tensioning the blade, avoid the urge to overtension it. Too much tension reduces the life of the bandsaw bearings and the blade.

#### To tension the blade:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the upper wheel door.
- **3.** Use the guide post handwheel (see **Figure 15**) to raise the upper blade guides to the highest position.

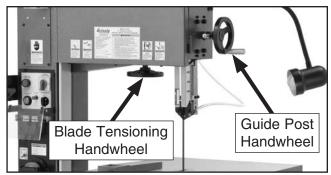


Figure 15. Guide post and blade tensioning handwheels.

 Check the deflection of the blade by pushing it with moderate pressure midway between the upper blade guides and the table (see Figure 16). The proper amount of deflection is approximately <sup>3</sup>/<sub>8</sub>".

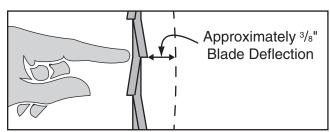


Figure 16. Proper amount of blade deflection.

**Note:** The most accurate way to check blade tension is to use a tensioning gauge. Grizzly offers the Model H5408 Blade Tensioning Gauge (refer to **Page 39**).

 Use the blade tensioning handwheel (see Figure 15) to make adjustments until the blade is properly tensioned.

**Note:** Turn the handwheel counterclockwise (as viewed from underneath it) to decrease tension and clockwise to increase tension.

#### **Tracking Blade**

Blade "tracking" refers to how the blade rides on the wheels as they rotate.

A blade that is tracking correctly runs cooler, reduces wear-and-tear on the machine, and increases cutting performance. When tracking correctly, the blade rides next to, but not against, the wheel flange (see **Figure 17**).

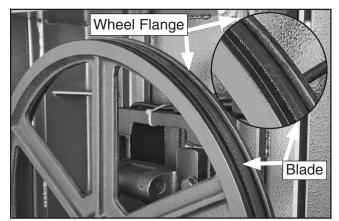


Figure 17. Back edge of blade next to wheel flange.

# NOTICE

Blade tension affects the blade tracking. It is important to make sure the blade is properly tensioned before tracking the blade.



Adjust the blade tracking by rotating the knob shown in **Figure 18**.

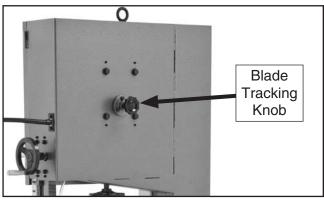


Figure 18. Location of the blade tracking knob.

When the tracking knob is rotated, the bottom of the upper wheel moves in or out, which changes how the blade tracks.

#### To adjust blade tracking:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the blade is properly tensioned, as instructed on the previous page.
- **3.** Open the rear motor access door.
- Roll the V-belt off the lower wheel pulley (see Figure 19). This will allow the wheels to turn freely by hand.

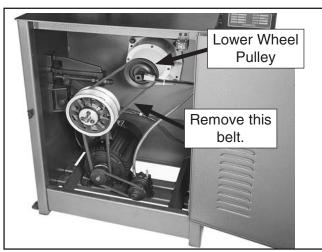


Figure 19. V-belt to remove in order to allow the wheels to spin by hand.

- 5. Open the upper wheel door.
- 6. Watch the position of the blade on the wheel as you rotate the upper wheel by hand several times.
  - -If the blade rides up against the wheel flange without pressure and does not wander, then no further adjustments are needed. Skip ahead to **Step 9**.
  - -If the blade does not ride up next to the wheel flange or it wanders, proceed with the next step.
- 7. Turn the tracking knob a small amount, then rotate the upper wheel by hand several times while watching the blade position on the wheel

**Note:** Turn the knob clockwise to make the blade move toward the wheel flange, and counterclockwise to move away from the wheel flange.

- 8. Repeat **Step 7** until the blade rides evenly next to the wheel flange without pressure and without wandering across the wheel.
- 9. Re-install the V-belt and secure both doors.

### NOTICE

If you cannot get the blade to properly track, the wheels may be out of alignment. Refer to *Wheel Alignment* on *Page 46* for detailed instructions on checking and adjusting.



### Adjusting Blade Guide Assemblies

The blade guide assemblies were properly adjusted at the factory; however, due to the variables involved with shipping, we recommend that you check the blade guide assemblies. Properly adjusted blade guide assemblies are essential to making accurate cuts because they keep the blade supported during operation, which prevents the blade from wandering.

The blade guide assemblies help to keep the blade straight while cutting. Use **Figures 20–22**` and the following descriptions to better understand the components of the blade guide assembly.

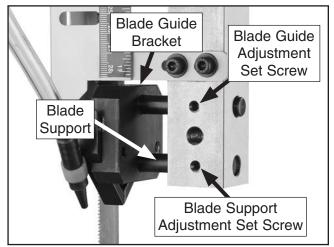


Figure 20. Blade guide assembly components.

**Note:** Both the upper and lower blade guide assemblies are adjusted in the same manner. To access the lower assembly, you will need to first remove the lower blade guards.

Blade Guides: Support the blade on both sides.

Blade Guide Bracket: Holds the blade guides.

Blade Support: Supports the blade from behind.

Blade Guide Adjustment Cap Screws: Secure the blade guides in the proper position on both sides of the blade.

Adjustment Set Screws: Secure the position of the blade guide brackets and the blade supports.

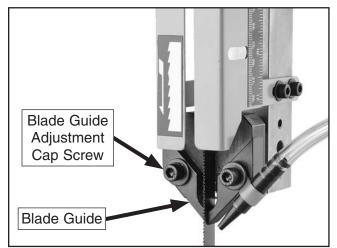


Figure 21. Front view of upper blade guide assembly.

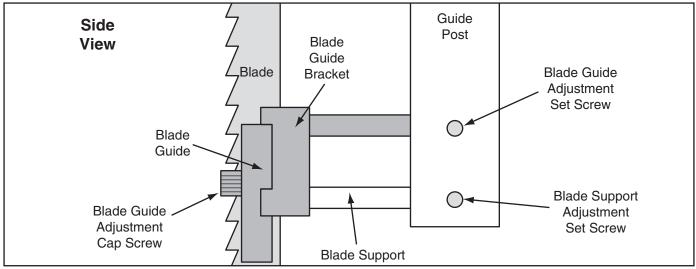


Figure 22. Upper blade guide components.



#### **Blade Support Adjustment**

The blade support is a round rod that is positioned 0.016" behind the blade to support it while cutting.

Tool Needed	Qty
Hex Wrench 3mm	1
Feeler Gauge 0.016"	1
Dollar Bill (instead of feeler gauge)*	1
*A dollar bill folded twice (four thicknesse	
approximately 0.016".	-

#### To adjust the blade support:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the blade guide adjustment set screw on the guide post (see Figure 23).

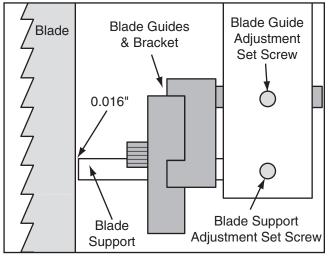


Figure 23. Blade guides and bracket positioned away from blade.

- 3. Move the blade guide bracket (with the guides) away from the blade so that only the blade support is near the blade, as illustrated in Figure 23.
- **4.** Loosen the blade support adjustment set screw on the guide post.
- 5. Using a feeler gauge or a dollar bill as a gauge, position the blade support 0.016" behind the blade.
- **6.** Re-tighten the blade support adjustment set screw to secure the setting.
- 7. Perform the **Blade Guide Adjustments** procedure in the next subsection.

#### **Blade Guide Adjustments**

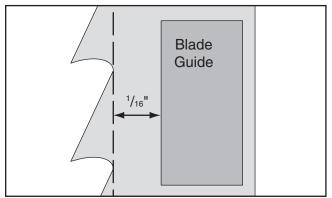
The blade guides should be positioned 0.004" away from each side of the blade and  $1/_{16}$ " behind the teeth gullets.

The goal is to position the guides as close as possible to the blade from side-to-side without touching it. The guides are positioned behind the teeth gullets to provide support without allowing the guides to ruin the teeth set when the blade is pushed back during cutting.

Tools Needed	Qty
Hex Wrench 3mm, 4mm, 5mm1	Each
Feeler Gauges 0.004"	1
Dollar Bill (instead of feeler gauge)*	1
Fine Ruler	1
*The thickness of a dollar bill is approxi	mately
0.004", so it can be used in the place of the	0.004"
feeler gauge.	

#### To adjust the blade guides:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Make sure the blade support is correctly positioned behind the blade (refer to **Blade Support Adjustment** in the previous subsection).
- **3.** Make sure the blade guide adjustment set screw is loose (see **Figure 23**).
- 4. Move the blade guide bracket in or out from the guide post until the blade guides are approximately <sup>1</sup>/<sub>16</sub>" (0.063") behind the teeth gullets (see **Figure 24**), then re-tighten the blade guide adjustment set screw.



**Figure 24.** Blade guide positioned approximately  $\frac{1}{16}$ " behind tooth gullets.



5. Loosen the blade guide adjustment cap screws (see Figure 25).

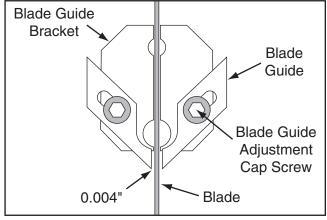


Figure 25. Blade guides adjusted 0.004" away from the blade sides.

6. Place the feeler gauge between the blade guide and the blade.

**Note:** If you use the dollar bill, fold it in half and place it over the blade, as shown in *Figure 26*.

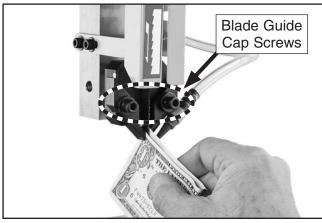


Figure 26. Using a dollar bill to set blade guide spacing.

7. Adjust the blade guide to lightly pinch the feeler gauge or dollar bill between each guide and blade side, then re-tighten the blade guide adjustment cap screws.

### **Power Connection**

After you have completed all previous setup instructions and circuit requirements, the machine is ready to be connected to the power supply.

To avoid unexpected startups or property damage, use the following steps whenever connecting or disconnecting the machine.

#### **Connecting Power**

- 1. Turn the machine power switch OFF.
- 2. Insert the power cord plug into a matching power supply receptacle. The machine is now connected to the power source.

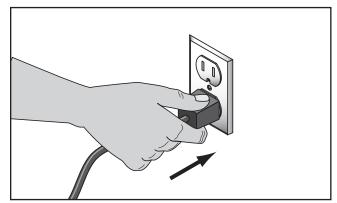


Figure 27. Connecting power.

#### **Disconnecting Power**

- 1. Turn the machine power switch OFF.
- 2. Grasp the molded plug and pull it completely out of the receptacle. Do not pull by the cord as this may damage the wires inside.

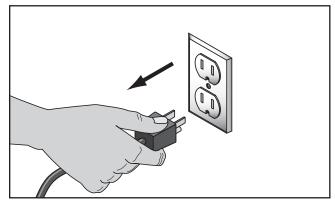


Figure 28. Disconnecting power.



# Test Run

Once the assembly is complete, test run your machine to make sure it runs properly and is ready for regular operation. The test run consists of verifying the following: 1) The motor powers up and runs correctly and 2) the STOP button safety feature works correctly.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 44**.

If you cannot find a remedy, contact our Tech Support at (570) 546-9663 for assistance.

#### To test run the machine:

- 1. Make sure you understand the safety instructions at the beginning of the manual and that the machine is setup properly.
- 2. Make sure all tools and objects used during setup are cleared away from the machine.
- 3. Push the bandsaw STOP button in, then twist it clockwise so it pops out. When the STOP button pops out, the switch is reset and ready for operation (see Figure 29).

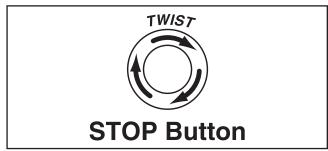


Figure 29. Resetting the STOP button.

 Make sure the blade is properly tensioned and tracked (refer to Tensioning & Tracking Blade on Page 19) and the blade guides are positioned correctly (refer to Adjusting Blade Guide Assemblies on Page 21). 5. Insert the key into the bandsaw power switch on the control panel (see **Figure 30**), and turn it to the Unlocked position to enable power to the bandsaw motor.

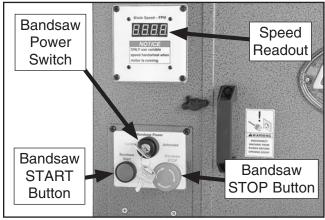


Figure 30. Bandsaw control panel.

- 6. Verify that the bandsaw is operating correctly by pushing the bandsaw START button to begin blade rotation.
  - When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
- 7. Use the variable speed handwheel below the table to change the blade speed and verify that the digital speed readout responds to the changes.
- 8. Adjust the blade speed to the minimum speed, then press the STOP button and allow the blade to come to a complete stop.



- **9.** WITHOUT resetting the STOP button, press the bandsaw START button. The machine should not start.
  - -If the machine *does* start (with the STOP button pushed in), immediately disconnect power to the machine. The STOP button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.
- Reset the STOP button, then turn the welding power switch on the welding station (see Figure 31) to the ON position. The welding power lamp should illuminate.
  - -If the welding power lamp *does not* illuminate, immediately disconnect power to the machine and call Tech Support for help.

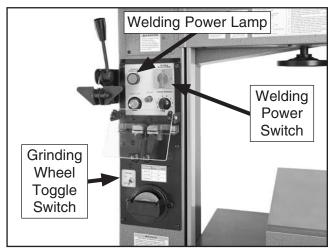


Figure 31. Welding station.

- 11. Stay clear of the grinding wheel then turn it *ON* and *OFF* to verify that the wheel spins when powered on.
- 12. Turn the welding station power switch OFF.

Congratulations! You have completed the setup and test run procedures. The bandsaw is now ready for operations.

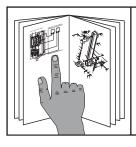


# **SECTION 4: OPERATIONS**

# **Operation Overview**

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

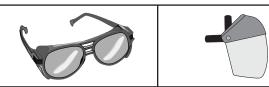
Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual and seek additional training from experienced machine operators, and do additional research outside of this manual by reading "howto" books, trade magazines, or websites.



**AWARNING** To reduce the risk of serious injury when using this machine, read and understand this entire manual before operating.

# 

Damage to your eyes and face could result from using this machine without proper protective gear. Always wear safety glasses and a face shield when operating this machine.



### NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY REC-OMMEND that you read books, review industry trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

### To complete a typical operation, the operator does the following:

- 1. Examines the workpiece to make sure it is suitable for cutting, and that it can be positioned in a stable manner on the table.
- 2. Adjusts the table tilt, if necessary, to the correct angle of the desired cut.
- **3.** Adjusts the height of the upper blade guides approximately  $\frac{1}{6}$ "- $\frac{1}{4}$ " higher than the thickness of the workpiece.
- **4.** Adjusts the fence to the desired width of cut then locks it in place.
- 5. Checks the outfeed side of the machine for proper support and to make sure the workpiece can safely pass all the way through the blade without interference.
- 6. Puts on safety glasses and a face shield, and starts the bandsaw.
- **7.** If necessary, uses push sticks or jigs for small or narrow workpieces to keep fingers away from the blade.
- 8. Feeds the workpiece all the way through the blade while maintaining firm pressure on the workpiece against the table and fence. Keeps hands and fingers out of the blade path and away from the blade during the entire cut.
- 9. Stops the machine.

# **ELECTROCUTION HAZARD**

This bandsaw is not designed to be used with water soluble cutting fluid or coolant. If needed, use a small amount of oil-based lubricant.



### Disabling & Locking Bandsaw Power Switch

The bandsaw power switch (see **Figure 32**) can be disabled and locked by turning the key to the Locked position, then removing it. Locking the switch in this manner can prevent unauthorized operation of the bandsaw, which is especially important if the machine is not stored inside an access-restricting building.

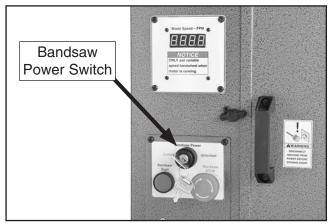


Figure 32. Bandsaw power switch.

**IMPORTANT:** Locking the switch only restricts its function. It is not a substitute for disconnecting power from the machine when adjusting or servicing.

## 

Children or untrained people can be seriously injured by this machine. This risk increases with unsupervised operation. To help prevent unsupervised operation of the bandsaw, disable and lock the switch before leaving machine unattended! Place key in a well-hidden or secure location.



# **Adjusting Table Tilt**

To perform beveled cuts, the bandsaw table tilts  $15^{\circ}$  side to side, and  $10^{\circ}$  front to back.

Tools Needed	Qty
Hex Wrench 10mm	1
Wrench or Socket 17mm	1

#### Adjusting Side-to-Side Table Tilt

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the two cap screws underneath the rear of the table (see Figure 33).

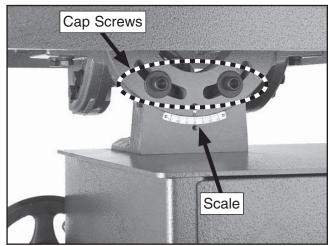


Figure 33. Side-to-side table tilt controls.

**3.** Using the scale shown in **Figure 33** as a guide, adjust the table tilt and re-tighten the cap screws to secure the setting.

#### Adjusting Front-to-Back Table Tilt

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the four hex bolts underneath the table—two on each side (see Figure 34).

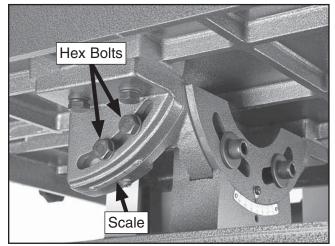


Figure 34. Front-to-back table tilt controls.

**3.** Using the scale shown in **Figure 34** as a guide, adjust the table tilt and re-tighten the four hex bolts to secure the setting.



**ALWAYS** make sure the table tilt cap screws and hex bolts are fully tightened before operation. If

the table shifts while cutting, your hands could accidentally move into the blade.





# **Blade Selection**

Selecting the right blade for the cut requires a knowledge of various blade characteristics.

#### **Blade Terminology**

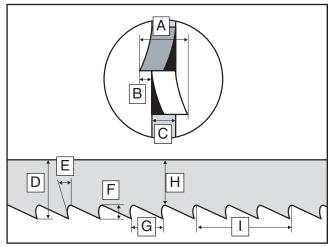


Figure 35. Bandsaw blade terminology.

- A. Kerf: The amount of material removed by the blade during cutting.
- **B.** Tooth Set: The amount each tooth is bent left or right from the blade.
- **C. Gauge:** The thickness of the blade.
- **D. Blade Width:** The widest point of the blade measured from the tip of the tooth to the back edge of the blade.
- E. Tooth Rake: The angle of the tooth face from a line perpendicular to the length of the blade.
- **F. Gullet Depth:** The distance from the tooth tip to the bottom of the curved area (gullet).
- **G.** Tooth Pitch: The distance between tooth tips.
- **H.** Blade Back: The distance between the bottom of the gullet and the back edge of the blade.
- I. **TPI:** The number of teeth per inch measured from gullet to gullet.

#### **Blade Length**

Measured by the blade circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between the wheels.

Model	Blade Length
G0736	
G0737	

#### **Blade Width**

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line—generally the wider the blade, the straighter it will cut.

The blade width range for this bandsaw is 1/8"-5/8".

Always pick the blade width that best suits your operation.

**Curve Cutting:** Use the chart below as a guide when choosing the correct blade for curve cutting. Determine the smallest radius curve that will be cut on your workpiece and use the corresponding blade width.

Minimum Radius of Cut	Blade Width
1/8"	1⁄8"
3/8"	<sup>3</sup> /16"
5/8"	1/4"
<b>1</b> <sup>1</sup> /4"	<sup>3</sup> /8"
<b>2</b> <sup>1</sup> / <sub>2</sub> "	1/2"
33⁄4"	<sup>5</sup> /8"

# 

Workpieces that cannot be supported or stabilized without a vise or jig should not be cut on a vertical metal-cutting bandsaw, because they can unexpectedly move while cutting and draw the operator's hands into the moving blade causing lacerations or amputation. Examples are chains, cables, round or oblong-shaped workpieces, workpieces with internal or built-in moving or rotations parts, etc.



#### Tooth Set

Three common tooth sets are standard, wavy, and raker (see **Figure 36**), each removing material in a different manner to make the kerf in the workpiece.

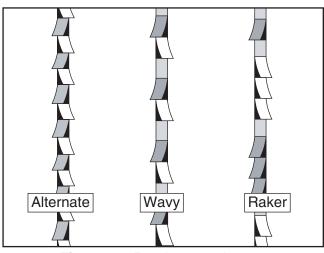


Figure 36. Bandsaw tooth sets.

**Alternate:** An all-purpose arrangement where the teeth are bent evenly left and right of the blade. Generally used for milder metals.

**Wavy:** Generally three or more teeth in a group that are bent one way, followed by a unbent tooth, and then a group bent the other way. Recommended for straight cuts in thin metals or thin-wall tubing.

**Raker:** Three teeth in a recurring group—one bent left, next one bent right, and then a non-set tooth. The raker set is ideal for most contour cuts.

#### **Tooth Type**

The most common tooth types are described below and illustrated in **Figure 37**.

**Standard or Raker:** Equally spaced teeth set a "0" rake angle. Recommended for all purpose use.

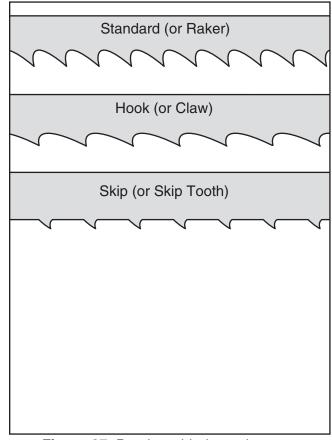


Figure 37. Bandsaw blade tooth types.

**Variable Pitch (VP):** Varying gullet depth and tooth spacing, a "0" rake angle, excellent chip removing capacity, and smooth cutting.

**Variable Pitch with Positive Rake:** Varying gullet depth and tooth spacing, a positive rake angle, better chip formation, and aggressive cutting.

**Hook or Claw:** Wide gullets (round or flat), equally spaced teeth, positive rake angle, and fast cut with good surface finish.

**Skip or Skip Tooth:** Wide, flat gullets, a "0" rake angle, equally spaced teeth, and recommended for non-ferrous materials.



#### Blade Pitch (TPI)

The chart below is a basic starting point for choosing teeth per inch (TPI) for variable tooth pitch blades and standard raker set bi-metal blades/ HSS blades. However, for exact specifications of bandsaw blades that are correct for your operation, contact the blade manufacturer.

#### To select the correct blade pitch:

- 1. Measure the material thickness. This measurement is the length of cut taken from where the tooth enters the workpiece, sweeps through, and exits the workpiece.
- 2. Refer to the "Material Width/Diameter" row of the blade selection chart in **Figure 38**, and read across to find the workpiece thickness you need to cut.

- **3.** Refer to the "Material Shapes" row and find the shape of the material to be cut.
- 4. In the applicable row, read across to the right and find the box where the row and column intersect. Listed in the box is the minimum TPI recommended for the variable tooth pitch blades.
- 5. The "Cutting Speed Rate Recommendation" section of the chart offers guidelines for various metals, given in feet per minute (FPM). Choose the speed closest to the number shown in the chart.

Material V	Vidth/Diar terial Sha		Teeth Per	Inch (TPI)	for Variable	Pitch Blade	es	
	► mm 50	SELECTIO	N 100 150	200	250 3	00 350	400	450
		5/8 3/4	4/6 2/3	3/4	4 1.4/2.5		2/3 1.5/.8	
	inch 2		31/2 4 5 6	7 8 9	-	2 13 14	15 16 17	18 19
	Material	SPEED F Speed FPM (M/Min)	ATE RECOM	Speed FPM (M/Min)	Material	Speed FPM (M/Min)	Material	Speed FPM (M/Min)
	Carbon Steel	196~354 (60) (108)	Tool Steel	203 (62)	Alloy Steel	111~321 (34) (98)	Free Machining Stainless Steel	150~203 (46) (62)
	Angle Steel	180~220 (54) (67)	High-Speed Tool Steel	75~118 (25) (36)	Mold Steel	246 (75)	Gray Cast Iron	108~225 (33) (75)
	Thin Tube	180~220 (54) (67)	Cold-Work Tool Steel	95~213 (29) (65)	Water Hardened Tool Steel	242 (75)	Ductile Austenitic Cast Iron	65~85 (20) (26)
	Aluminum Alloy	220~534 (67) (163)	Hot-Work Tool Steel	203 (62)	Stainless Steel	85 (26)	Malleable Cast Iron	321 (98)
	Copper Alloy	229~482 (70) (147)	Oil-Hardened Tool Steel	203~213 (62) (65)	CR Stainless Steel	85-203 (26) (62)	Plastics	220 (67)

Figure 38. General guidelines for blade selection and speed chart.



# Blade Breakage

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades must endure.

Blade breakage is also due to avoidable circumstances. Avoidable blade breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

### The most common causes of blade breakage are:

- Faulty alignment or adjustment of the blade guides.
- Forcing or twisting a wide blade around a short radius.
- Feeding the workpiece too fast.
- Dull or damaged teeth.
- Over-tensioned blade.
- Top blade guide assembly set too high above the workpiece. Adjust the top blade guide assembly so that there is approximately 1/8"-1/4" between the bottom of the assembly and the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.
- Leaving the blade tensioned when not in use.
- Using the wrong pitch (TPI) for the workpiece thickness. The general rule of thumb is to have not less than two teeth in contact with the workpiece at all times during cutting.

### Blade Care & Break-In

#### Blade Care

A bandsaw blade is a thin piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, set, type, and pitch for each application. Using the wrong blade will produce unnecessary heat and shorten the life of the blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

#### **Blade Break-In**

The sharp teeth tips and edges of a new blade are extremely sharp, and cutting at too fast of a feed rate fractures the beveled edges of the teeth and causes premature blade wear.

#### To properly break-in a new blade:

- 1. Choose the correct speed for the blade and material of the operation.
- Reduce the feed pressure by half for the first 50–100 in<sup>2</sup> of material cut.
- **3.** To avoid twisting the blade when cutting, adjust the feed pressure when the total width of the blade is in the cut.
- 4. Use the **Chip Inspection Chart** on the next page to check the blade efficiency.



The best method of evaluating the performance of your cutting operation is to inspect the chips that are formed. Refer to the chart below for chip inspection guidelines.

Chip Appearance	Chip Description	Chip Color	Blade Speed	Feed Pressure	Additional Actions
0	Thin & Curled	Silver	Good	Good	
~/~	Hard, Thick & Short	Brown or Blue	Decrease	Decrease	Check Cutting Fluid Mix
S	Hard, Strong & Thick	Brown or Blue	Decrease	Decrease	Check Cutting Fluid Mix
Ø	Hard, Strong & Thick	Silver or Light Brown	Good	Decrease Slightly	Check Blade Pitch
()	Hard & Thin	Silver	Increase	Decrease	Check Blade Pitch
	Straight & Thin	Silver	Good	Increase	
	Powdery	Silver	Decrease	Increase	
	Curled Tight & Thin	Silver	Good	Decrease	Check Blade Pitch

Figure 39. Chip inspection chart.



# **Blade Changes**

This bandsaw uses metal-cutting bandsaw blades with a blade width range of  $\frac{1}{8}$ "- $\frac{5}{8}$ " and a length as specified below:

Model G0736	120"
Model G0737	140"



### 

All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.

#### To replace the blade:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the upper and lower wheel doors.
- **3.** Release blade tension by rotating the tensioning handwheel counterclockwise (as viewed from underneath).
- 4. Put on heavy gloves.
- 5. Remove the .
- 6. Slide the blade off the upper and lower wheels, then through the blade guards and table slit.
- 7. In reverse order from above, position the new blade so that the teeth are facing downward and forward, then slide it through the table slot and onto the wheels.

**Note:** If the teeth will not face downward in any orientation, the blade is inside-out. Carefully twist the blade right side-out.

8. Position the back edge of the blade so that it is next to, but not against, the top wheel flange (see **Figure 40**).

**Note:** *Excessive blade contact with the wheel flange during operation could lead to blade and wheel damage.* 

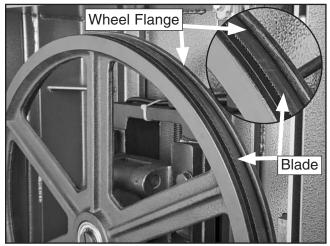


Figure 40. Back edge of blade next to wheel flange.

9. Replace the table pin.

# NOTICE

Make sure that the table pin is installed before beginning operations. The table pin prevents the front table halves from getting misaligned when heavy workpieces are loaded on the table.

- Properly tension and track the blade (refer to Tensioning & Tracking Blade on Page 19 for detailed instructions).
- 11. Check/adjust the upper and lower blade supports/guides (refer to Adjusting Blade Guide Assemblies on Page 21).
- **12.** Close and secure both wheel doors.



### **Guide Post**

The guide post assembly (see **Figure 41**) is used to 1) Properly position the blade guard to protect the operator from the exposed blade between the workpiece and the upper wheel housing, and 2) position the upper blade guide assembly close to the workpiece for blade support.

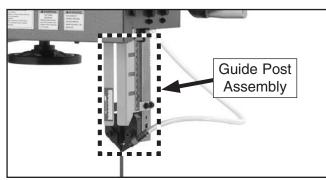


Figure 41. Guide post assembly.

In order to cut accurately and safely, position the bottom of the upper blade guides approximately  $\frac{1}{8}$ "- $\frac{1}{4}$ " above the workpiece—this positioning provides the greatest blade support and minimizes the amount of blade exposed to the operator during operation.

### **Blade Shear**

To use the blade shear, place the back of the blade evenly against the front wings of the blade shear, as shown in **Figure 42**, then firmly pull the handle down to square off the blade end.

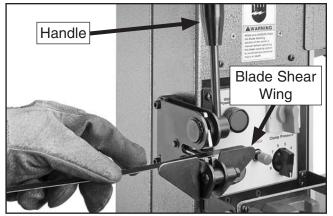


Figure 42. Using the blade shear.

Being able to quickly and safely weld a bandsaw blade comes in handy for the following situations:

- To re-join a blade that has been purposely cut for making an internal contour cut.
- To repair a broken blade that is still sharp and useful.
- To fabricate a new blade from bulk blade material to fit your bandsaw.

This metal-cutting bandsaw is equipped with a blade welder that uses electrical resistance (induction) to heat and fuse the blade ends together. The welding process leaves the joint brittle, so it needs to be annealed afterward to give it strength and flexibility.

#### To weld the ends of bandsaw together:

- 1. Turn the bandsaw motor *OFF* and turn the power switch key to the Locked position. This will prevent an unexpected startup.
- 2. Put on heavy leather gloves.

Continued on next page ----->



**Note:** To make a proper blade weld, the ends of the blade must be evenly butted together during the welding process. If necessary, use the grinder to square up the ends or remove any teeth that are in the welding zone (see **Figures 43–44**).



Figure 43. Using the grinder to square up the blade end.

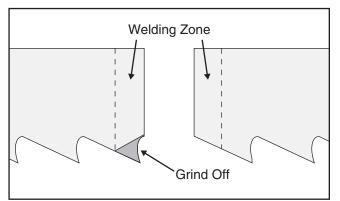


Figure 44. Blade ends and welding zone.

**3.** Pull the welding guard up and loosen the welding clamps by pulling the lock levers down (see **Figure 45**).

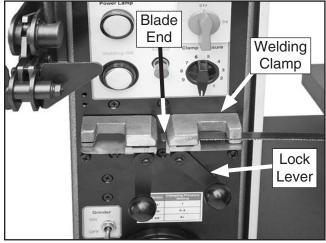


Figure 45. Blade end properly position in welding clamp and locked in place.

- 4. Position the back of one blade end evenly against the back of the welding clamp so that the end is midway between the two clamps, then rotate that lock lever all the way up to hold the blade end in place.
- 5. Set the clamping pressure dial (see Figure 46) to "0".

**Note:** As the blade material melts to form the weld, pressure is applied to the joint by the welding clamps. The correct amount of pressure will be set with the clamping pressure dial in a later step.

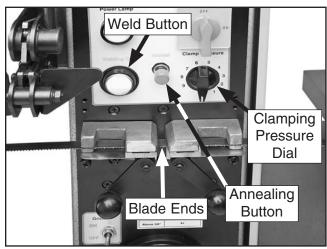


Figure 46. Blade ends in correct position for welding.





6. Place the other blade end in the opposite welding clamp and position it so that the end evenly butts up against the opposing blade end, then lock it in place by rotating that lock lever all the way up, as shown in **Figure 46**.

**Note:** To ensure a good blade weld, it is critical that the blade ends evenly butt up against each other.

7. Use the chart below as a guide for setting the correct clamping pressure for the blade.

Blade Width	Pressure Setting
Up to <sup>1</sup> /4"	1
<sup>1</sup> /4" to <sup>3</sup> /8"	2–3
Above 3/8"	4+

### 

Burning sparks from the blade welding operation could be thrown in all directions and cause burns or fire.

When using the blade welder, always keep the welding guard down and protect yourself from the flying sparks. Have fire extinguishing equipment readily available.

DO NOT weld near flammables.

- **8.** Lower the welding guard down over the blade ends.
- 9. Turn the welding station ON.
- **10.** Press and release—DO NOT hold—the weld button.

**Note:** A limit switch senses the electrical resistance between the blade ends. If there is an adequate amount of welded material, the limit switch will not allow the weld button to activate the operation again.

- **11.** Turn the clamping pressure dial to "0", then rotate the lock levers down to release the blade from the welding clamps.
- **12.** Inspect the weld. The welded joint should be even across the width of the blade with no gaps (see **Figure 47**).

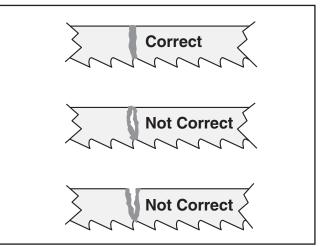


Figure 47. Blade welding joint examples.

- -If the weld is satisfactory, continue to **Step 13**.
- -If the weld is NOT satisfactory, begin again at **Step 2**.
- **13.** Place the blade in the welding clamps with the weld centered between the clamps and re-tighten the lock levers.

**Note:** The welding operation has left the blade joint brittle. Annealing will allow the welded area to cool in a gradual manner, giving it strength and flexibility.

- **14.** Rapidly press and release—DO NOT hold the annealing button two or three times until the weld zone turns a dull red color.
- **15.** Repeat **Step 14** three to four more times, allowing the weld to cool for about 30 seconds between each repetition.



- **16.** Allow the blade to completely cool, then reinspect the weld.
- **17.** Grind the weld flash flat on both sides so the blade will run smoothly on the wheels.

**Note:** Make sure not to grind the teeth or blade body, or overheat the blade during grinding—this will weaken the blade.

- **18.** Re-clamp the blade in the welding clamps with the weld centered, then repeat the annealing process described in **Step 14** twice more.
- **19.** Test the strength and flexibility of the weld by bending the blade in an arc (with the weld at the top of the arc) similar in size and shape of the bandsaw wheels. The blade should bend smoothly without any angles (see **Figure 48**).

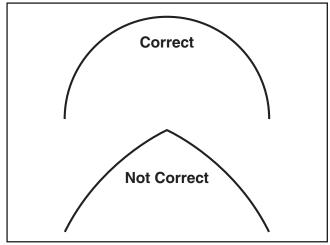


Figure 48. Comparison of correct and incorrect blade weld bends.

- 20. Turn the welding station OFF.
- 21. DISCONNECT BANDSAW FROM POWER!
- **22.** Scrape and clean any flash, oil, or debris from the welding clamps and surrounding area.

## NOTICE

For good metal-to-metal contact between the welding clamps and the blade, make sure the blade material and the clamps are free from any debris or flash before and after each use of the welding station.



# **SECTION 5: ACCESSORIES**

### 

Some aftermarket accessories can be installed on this machine that could cause it to function improperly, increasing the risk of serious personal injury. To minimize this risk, only install accessories recommended for this machine by Grizzly.

### NOTICE

Refer to the newest copy of the Grizzly Catalog for other accessories available for this machine.

Model	Length	Width	TPI	Gauge
T24348	120"	1⁄4"	6 Hook	0.025
T24349	120"	1⁄4"	10–14 VP	0.025
T24350	120"	1/2"	10–14 VP	0.025
T24351	140"	1⁄4"	6 Hook	0.025
T24352	140"	1⁄4"	10–14 VP	0.025
T24353	140"	1⁄4"	10–14 VP	0.025

**Grizzly Replacement Bandsaw Blades** 

#### T10091—Deburring Machine

Deburr and bevel edges the easy way while getting consistent results every time. This stationary deburring machine is powered by a  $\frac{1}{2}$  HP motor and includes an 18 tooth carbide cutter. Features include variable speed to 4300 RPM and adjustable depth of cut.



Figure 49. Model T10091 Deburring Machine.

T20501—Face Shield Crown Protector 4" T20502—Face Shield Crown Protector 7" T20503—Face Shield Window T20452—"Kirova" Anti-Reflective S. Glasses T20451—"Kirova" Clear Safety Glasses H0736—Shop Fox<sup>®</sup> Safety Glasses H7194—Bifocal Safety Glasses 1.5 H7195—Bifocal Safety Glasses 2.0 H7196—Bifocal Safety Glasses 2.5



Figure 50. Eye protection assortment.

#### H5408—Blade Tensioning Gauge

The Blade Tensioning Gauge ensures long blade life, reduced blade breakage, and straight cutting by indicating correct tension. A precision dial indicator provides you with a direct readout in PSI.



Figure 51. H5408 Blade Tensioning Gauge.

Gall 1-800-523-4777 To Order



#### **Recommended Metal Protectants**

G5562—SLIPIT<sup>®</sup> 1 Qt. Gel G5563—SLIPIT<sup>®</sup> 12 oz Spray G2871—Boeshield<sup>®</sup> T-9 12 oz Spray G2870—Boeshield<sup>®</sup> T-9 4 oz Spray H3788—G96<sup>®</sup> Gun Treatment 12 oz Spray H3789—G96<sup>®</sup> Gun Treatment 4.5 oz Spray



Figure 52. Recommended products for protecting unpainted cast iron/steel part on machinery.

#### G0692—14" Dry Cut Metal Saw

**T20920—14" 58-Tooth Blade (for general use)** Unlike abrasive metal-cutting saws that slowly erode to maintain a cutting edge, the dry cut saw uses a carbide-tipped blade that is specially made to cut metal. Full cutting capacity is maintained through every cut and the slower blade speed results in cuts that are second to none! For those that need consistency and performance, this is the saw for you! Blade not included.



Figure 53. Model G0692 14" Dry Cut Metal Saw.

### G4030—6<sup>1</sup>/<sub>2</sub>" x 10" Horizontal Metal-Cutting Bandsaw

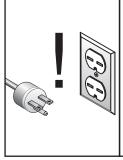
This full featured machine has everything you need in a horizontal metal-cutting bandsaw. From its solid supporting cast-iron base and quick positioning vise, to its rotary pump powered coolant system, this workhorse is at home in the hobby shop as well as the full production shop. Features locking roller cabinet for easy mobility, hydraulic feed for smooth cutting, vertical saw table and removable coolant tank for easy cleaning. So whatever your need this horizontal metal-cutting bandsaw will fit the bill.



Figure 54. Model G4030 Horizontal Metal-Cutting Bandsaw



# **SECTION 6: MAINTENANCE**



### 

Always disconnect power to the machine before performing maintenance. Failure to do this could result in serious personal injury from unexpected startup.

### Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

#### Daily:

- Check/correct loose mounting bolts.
- Check/correct damaged or dull saw blade.
- Check/correct worn or damaged wires.
- Clean/protect table.
- Clean metal chips from upper and lower wheel areas, and the chip chute.
- Clean welding station.
- Lubricate the air pump (Page 43).
- Correct any other unsafe condition.

#### **Twice Monthly:**

- Check for V-belt damage or wear (Page 46).
- Lubricate tension leadscrews, guide post rack, variable speed pulley shaft (**Page 42**).
- Remove the blade and clean the wheels.

### Cleaning

Use a brush and a shop vacuum to remove chips and other debris from the machine. Keep the table rust-free with regular applications of products like G96<sup>®</sup> Gun Treatment, SLIPIT<sup>®</sup>, or Boeshield<sup>®</sup> T-9 (see **Section 5: Accessories** on **Page 40**).

Once a month, remove the blade and thoroughly clean all metal chips or built-up grease from the wheels and wheel areas.

### Redressing Rubber Tires

As the bandsaw ages, the rubber tires on the wheel may need to be redressed if they become hardened or glazed over. Redressing the rubber tires improves blade tracking and reduces vibration and blade lead.

If the rubber tires become too worn, then blade tracking will become extremely difficult. At that point, redressing will no longer be effective, and the rubber tires must be replaced.

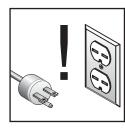
#### To redress the rubber tires:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Put on heavy gloves and remove the blade.
- **3.** Use a brush and shop vacuum to clean any chips from the rubber tires.
- **4.** Use 100-grit sandpaper to remove the hardened surface or glazing. Only redress the rubber enough to expose a fresh rubber surface.



## Lubrication

The bandsaw bearings are factory lubricated and sealed. Leave them alone unless they need to be replaced.



Always disconnect the bandsaw from power before beginning any lubrication task.

Use the schedule below and the following instructions to properly lubricate the other components that require lubrication.

Device	Hours of Operation
Guide Post Rack	Every 80 Hours
Tension Leadscrew	Every 80 Hours
Variable Speed Pulley Shaft	Every 80 Hours
Air Pump	Every 4 Hours

Items Needed	Qty
NLGI#2 Grease or Equivalent	As Needed
Grease Gun	1
Air Tool Oil	As Needed

### Guide Post Rack

1. Lower the guide post all the way down to fully expose the guide post rack (see **Figure 55**).

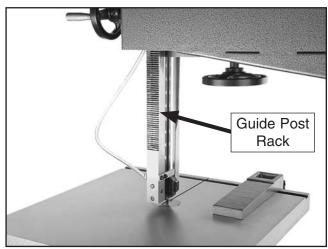


Figure 55. Guide post rack fully exposed.

- 2. Use a stiff clean brush and mineral spirits to clean away any grease or grime from the guide post rack.
- **3.** When dry, use another clean brush to apply a light coat of NLGI#2 grease or equivalent.
- 4. Move the guide post up and down through its full path of travel to distribute the grease.

#### **Tension Leadscrew**

- 1. Remove the blade.
- 2. Rotate the blade tension handwheel clockwise to fully expose the tension leadscrew (see Figure 56).

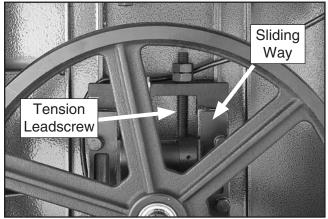


Figure 56. Tension leadscrew fully exposed.

- 2. Use shop rags and mineral spirits to clean away any grease or grime from the leadscrew threads and the surrounding area.
- **3.** Use a clean shop rag to apply a thin coat of NLGI#2 grease or equivalent. Make sure to rub the grease into the threads.
- 4. Re-tension the blade and check/adjust the blade tracking (refer to **Page 19** for detailed instructions).

## NOTICE

Do not get any grease on the tension sliding ways (see *Figure 56*). These cast iron ways create their own dry lubricant with use. Applying grease will create a mixture that will interfere with the smooth movement of the ways.



### NOTICE

Do not apply any grease on the trunnions underneath the table. These cast iron parts create their own dry lubricant with use. Applying grease will create a mixture that will interfere with the smooth movement of the table.

#### Variable Speed Pulley Shaft

1. Open the motor access door, and use shop rags and mineral spirits to clean away any grease or grime from the pulley shaft grease fitting (see **Figure 57**). This will ensure the new grease is not contaminated.

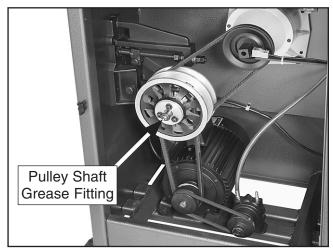


Figure 57. Variable speed pulley grease fitting.

- **2.** Use a grease gun to add 2-4 pumps of NLGI#2 grease or equivalent to the fitting.
- **3.** Wipe away any excess grease from the fitting or pulley.
- 4. Close and secure the motor access door.

#### Air Pump

- 1. Open the motor access door.
- 2. Add four drops of quality air tool oil to the fitting on the right side of the pump (see **Figure 58**).

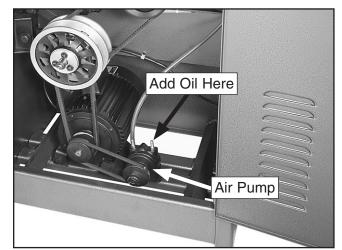


Figure 58. Air pump oil fitting.

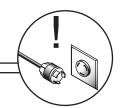
- **3.** Clean away any oil from outside the air pump, bandsaw frame, or floor.
- 4. Close and secure the motor access door.



# **SECTION 7: SERVICE**

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support at (570) 546-9663. **Note:** *Please gather the serial number and manufacture date of your machine before calling.* 

### Troubleshooting



#### **Motor & Electrical**

Symptom	Possible Cause	Possible Solution
Machine does not	1. Power switch key is removed or in locked	1. Install power switch key and turn it to the unlocked
start or a breaker	position.	position.
trips.	2. STOP button is engaged/faulty.	2. Rotate clockwise until it pops out; replace it if faulty.
	3. One of the door switches is at fault.	3. Check/replace door switch.
	4. Plug/receptacle is at fault or wired incorrectly.	4. Test for good contacts; correct the wiring.
	5. Motor connection wired incorrectly.	5. Correct motor wiring connections (Page 55).
	6. Wall fuse/circuit breaker is blown/tripped.	<ol> <li>Ensure circuit size is suitable for this machine; replace weak breaker.</li> </ol>
	7. Power supply switched OFF or is at fault.	<ol> <li>Ensure power supply is switched <i>ON</i>; ensure power supply has the correct voltage.</li> </ol>
	8. Wiring is open/has high resistance.	8. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary.
	9. START button is at fault.	9. Replace START switch.
	10. Motor is at fault.	10. Test/repair/replace.
Machine stalls or is	1. Operator feeding workpiece too fast.	1. Reduce feed rate; increase blade speed.
overloaded.	2. Workpiece alignment is poor.	<ol> <li>Eliminate workpiece binding; use jig, fence, guide, clamps, roller table, or push blocks as required for workpiece alignment control.</li> </ol>
	3. Wrong workpiece material or blade.	<ol> <li>Use metal with correct properties for your type of machining; match blade with workpiece and operation.</li> </ol>
	4. Blade is slipping on wheels.	4. Adjust blade tension and tracking ( <b>Page 19</b> ); redress rubber wheel tires if necessary ( <b>Page 41</b> ).
	5. Motor has overheated.	5. Clean off motor, let cool, and reduce workload.
	6. V-belt(s) slipping.	6. Replace bad V-belt(s) ( <b>Page 46</b> ).
	7. Machine is undersized for the task.	<ol> <li>Use sharp blade with lower TPI; reduce the feed rate; use a small amount of oil-based coolant if necessary.</li> </ol>
	8. Pulley slipping on shaft (other than variable speed pulleys).	8. Replace loose pulley/shaft.
	9. Motor bearings are at fault.	<ol> <li>Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>
	10. Motor is at fault.	10. Test/repair/replace.





### Motor & Electrical (continued)

Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation.	<ol> <li>Motor mount loose/broken.</li> <li>Machine is incorrectly mounted or sits unevenly.</li> <li>Motor fan is rubbing on fan cover.</li> <li>Blade wheels out of alignment.</li> </ol>	<ol> <li>Tighten/replace.</li> <li>Tighten/replace anchor studs in floor; relocate/shim machine.</li> <li>Replace dented fan cover; replace loose/damaged fan.</li> <li>Re-align blade wheels (Page 46).</li> </ol>

### **Cutting Operations**

Symptom	Possible Cause	Possible Solution
Machine slows during cut.	<ol> <li>Feeding workpiece too fast.</li> <li>Blade is dull.</li> <li>V-belt(s) slipping.</li> </ol>	<ol> <li>Reduce feed rate/increase blade speed.</li> <li>Replace blade (Page 34).</li> <li>Check/replace V-belt(s) (Page 46).</li> </ol>
Ticking sound when the saw is running.	<ol> <li>Blade weld contacting blade guide/support (a light ticking is normal).</li> <li>Blade weld may be failing.</li> </ol>	<ol> <li>Inspect/re-grind blade weld (Page 35); re-adjust blade support/guides (Page 21).</li> <li>Inspect weld and re-weld blade if necessary (Page 35), or replace blade (Page 34).</li> </ol>
Vibration when cutting.	<ol> <li>Workpiece is loose.</li> <li>Loose or damaged blade.</li> <li>Metal chip buildup on wheels.</li> </ol>	<ol> <li>Use the correct holding fixture and reclamp workpiece.</li> <li>Re-tension/replace blade (Page 19 &amp; 34).</li> <li>Clean metal chips from wheels.</li> </ol>
Rough or poor quality cuts.	<ol> <li>Feeding workpiece too fast.</li> <li>Incorrect blade for operation; worn or damaged blade.</li> <li>Blade guides/support adjusted incorrectly.</li> </ol>	<ol> <li>Reduce feed rate/increase blade speed.</li> <li>Use the correct blade for the operation (Page 29); replace worn or damaged blade (Page 34).</li> <li>Correctly adjust blade guides/support (Page 21); set the blade guides approximately 1/8–1/4" above workpiece.</li> </ol>
Blade wanders or doesn't cut straight.	<ol> <li>Operator feeding workpiece too fast.</li> <li>Blade not properly tensioned or tracking correctly.</li> <li>Metal chip buildup on wheels.</li> </ol>	<ol> <li>Reduce feed rate; increase blade speed.</li> <li>Properly tension and track blade (Page 19).</li> <li>Clean metal chips from wheels.</li> </ol>
Cuts are not square (vertically).	1. Table tilt is not adjusted to "0".	1. Adjust table to "0" tilt.
Wheel is noisy.         1. Wheel bearing is worn out.		1. Replace wheel bearing.
Blade does not track consistently, correctly, or at all.	<ol> <li>Wheels are not coplanar or aligned with each other.</li> <li>Rubber tires on wheels are worn out.</li> </ol>	<ol> <li>Adjust wheels to be coplanar/aligned with one another (Page 46).</li> <li>Redress the rubber tires on the wheels (Page 41).</li> </ol>



### **Replacing V-Belts**

To ensure optimum power transfer from the motor to the blade without slipping, the V-belts must be in good condition.

Replace the V-belts if they are cracked, frayed, or excessively worn.

**Note:** The V-belts do not need to be tensioned. The variable speed pulley system and the weight of the motor assembly ensure proper V-belt tension.

#### To replace the V-belts:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Open the motor access door.
- **3.** Roll the V-belt off the air pump pulley, then remove it from the motor pulley (see **Figure 59**).

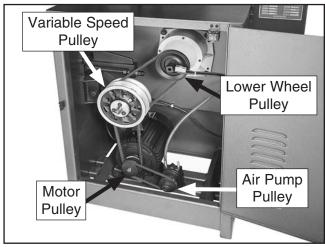


Figure 59. Drive component identification.

- 4. Lift the air pump up to release the V-belt tension between the motor pulley and variable speed pulley, then remove the V-belt.
- 5. Roll the V-belt off the lower wheel pulley, then remove it from the variable speed pulley.
- **6.** Install the new V-belts in the reverse order that you removed them.
- 7. Close and secure the motor access door.

### **Wheel Alignment**

Wheel alignment is important for optimal performance from your bandsaw. Wheels are properly aligned when they are parallel with each other and in the same plane or "coplanar" (see the illustration in **Figure 60** on the next page).

The wheels were properly aligned at the factory. However, if the wheels become out of alignment, one or more of the following symptoms may occur:

- The blade will not track properly.
- Excessive blade vibration.
- Excessive blade lead (blade wanders from a straight-line cut).

**Important:** This is a time consuming procedure. Before proceeding, perform the **Tensioning & Tracking Blade** instructions (**Page 19**) to ensure that fault does not lie with these more simple and common adjustments. If the original symptoms persist, proceed with this subsection.

#### **Checking Wheel Alignment**

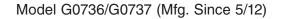
Items Needed	Qty
Board 2x6 x 4' (G0736)	1
Board 2x6 x 5'1" (G0737)	1
Fine Ruler	1

#### To check the wheel alignment:

1. Make one edge of the 2x6 board completely straight (typically with a jointer), then cut out a slot in the middle to compensate for the cabinet (see the illustration in **Figure 60** for an example).

**Note:** The goal is to make a "coplanarity gauge" that can reach the top and bottom of both wheels simultaneously.

- 2. DISCONNECT BANDSAW FROM POWER!
- 3. Remove the table.
- 4. Open the upper and lower wheel doors.



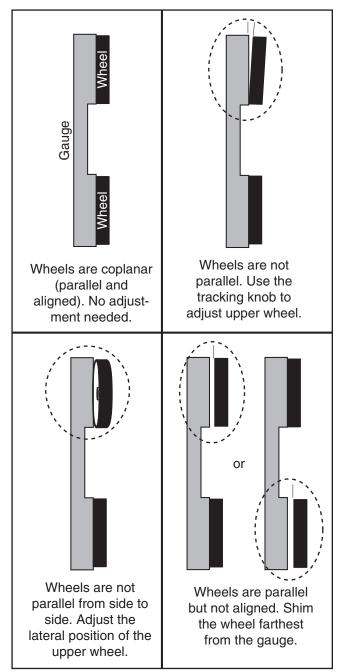


Figure 60. Various wheel alignments.

- Hold the coplanarity gauge close to the center of both wheels, making sure that the gauge fully extends across the wheels as shown in Figure 60. Also, check the alignment on the left and right side of the wheels.
  - -If the wheels are coplanar (in the same plane), the gauge will evenly touch the top and bottom of both wheels.
  - -If the top wheel is NOT parallel with the bottom wheel, use the tracking knob to bring it into alignment.
  - —If the top wheel is NOT parallel from side to side (laterally), perform the Laterally Adjusting Top Wheel procedure below.
  - -If both wheels are parallel but not aligned, perform the **Shimming Wheel** procedure below on the wheel that is farthest from the coplanarity gauge.

**Note:** Use the fine ruler to measure the gap from the gauge to the wheel. The size of the gap represents the size of the shim(s) you need.

#### Laterally Adjusting Top Wheel

Items Needed	Qty
Shop-Made Coplanarity Gauge	1
Wrench or Socket 17mm	1
Hex Wrench 4mm	1

To laterally adjust the top wheel:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Loosen the four hex bolts on the upper rear of the cabinet 3–4 turns (see Figure 61).

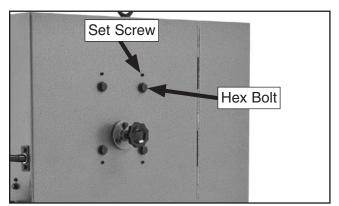


Figure 61. Upper wheel adjustment controls.



**3.** In even amounts, make small changes to the set screws to compensate for the direction that the upper wheel is out of alignment.

**Example:** If the upper wheel is twisted to the right from the lower wheel (as viewed from the front), thread the right-hand set screws (as viewed from the rear) out and the left-hand set screws in—all in even amounts.

- **4.** Snug the four hex bolts, then use the gauge to re-check wheel coplanarity.
- 5. Repeat Steps 2–4 as necessary to bring the upper wheel into alignment with the lower wheel.
- 6. Close and secure both wheel doors.

#### Shimming Wheel

Items Needed	Qty
Shop-Made Coplanarity Gauge	1
External Retaining Ring Pliers (Upper Whee	el)1
Hex Wrench 8mm (Lower Wheel)	1
ShimsAs Ne	eded

**Note:** Flat washers and thin electrical washers work well as shims and can be obtained from your local hardware store.

#### To shim a wheel:

- 1. DISCONNECT BANDSAW FROM POWER!
- 2. Remove the bandsaw blade.
- **3.** If installed, remove the table.
- 4. Carefully remove the wheel that needs to be shimmed, add the shims, then re-install the wheel.
- 5. Use the gauge to re-check wheel coplanarity.
- 6. If necessary, repeat **Steps 4–5** until the wheels are coplanar.
- 7. Close and secure both wheel doors.

### Blade Guides & Supports

With use, the faces of the blade guides will wear at an angle and it may become difficult to properly adjust them. If this is the case, swap and turn blade guides over so that they are reversed relative to the blade (see **Figure 62**).

When the blade guides are no longer effective after reversing them, then replace them with new guides (Grizzly Part Number P0736221).

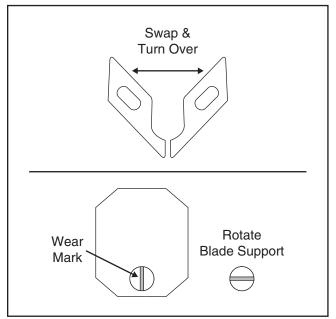


Figure 62. Blade guide and support orientation.

As the blade is deflected back into the blade support during operation, a groove will eventually wear into the blade support. As this groove becomes deeper, it can affect the accuracy of the cut. When this happens, loosen the blade support cap screw and rotate the blade support 90°, as shown in **Figure 62**.

If necessary, the end of the blade support can be ground flat to extend its life. When it becomes too short to properly support the blade, replace it with a new one (Grizzly Part Number P0736223).

**Note:** Make sure to re-adjust the blade guides and support as directed in **Adjusting Blade Guide Assemblies** on **Page 21** after making these changes.



### Calibrating Table Tilt Scales

The table tilt scales must be calibrated to the blade to ensure that they are accurate.

#### 

#### To calibrate the table tilt scales:

- 1. DISCONNECT BANDSAW FROM POWER!
- Adjust the table tilt to 0° from front-to-back and side-to-side (refer Adjusting Table Tilt on Page 28).
- 3. Place the square on the table and up against the side of the blade (not against the teeth), as shown in **Figure 63**. The square should rest evenly on the table and up against the blade.

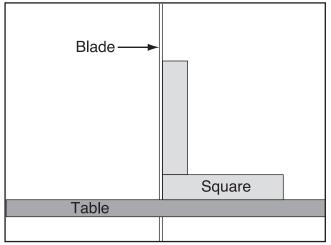


Figure 63. Checking side-to-side table tilt with blade.

—If the square *does not* rest evenly on the table and up against the blade, adjust the table tilt until it does.

- Check the scale pointer underneath the right side of the table—it should be pointing to the 0° mark.
  - —If the scale pointer *does not* point directly to the 0° mark, loosen the Phillips head screw on the pointer, adjust the pointer to point directly at the 0° mark, then re-tighten the Phillips head screw.
- 5. Repeat **Steps 3–4** with the square against the back edge of the blade and using the front-to-back tilt controls under the table.

## **SECTION 8: WIRING**

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.* 

## AWARNING Wiring Safety Instructions

**SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

**MODIFICATIONS.** Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts.

**WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

**CIRCUIT REQUIREMENTS.** You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

**MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

**EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

**COLOR KEY** 

#### NOTICE

BLACK I (Bk) BLUE (BI) YELLOW The photos and diagrams included in this section are YELLOW WHITE : (wt)⊧ BROWN (Br) Yg GREEN best viewed in color. You GREEN (Gn) GRAY (Gy) PURPLE (Pu can view these pages in color at www.grizzly.com. RED (Rd) ORANGE Or PINK (Pk



LIGHT

BLUE

BLUE

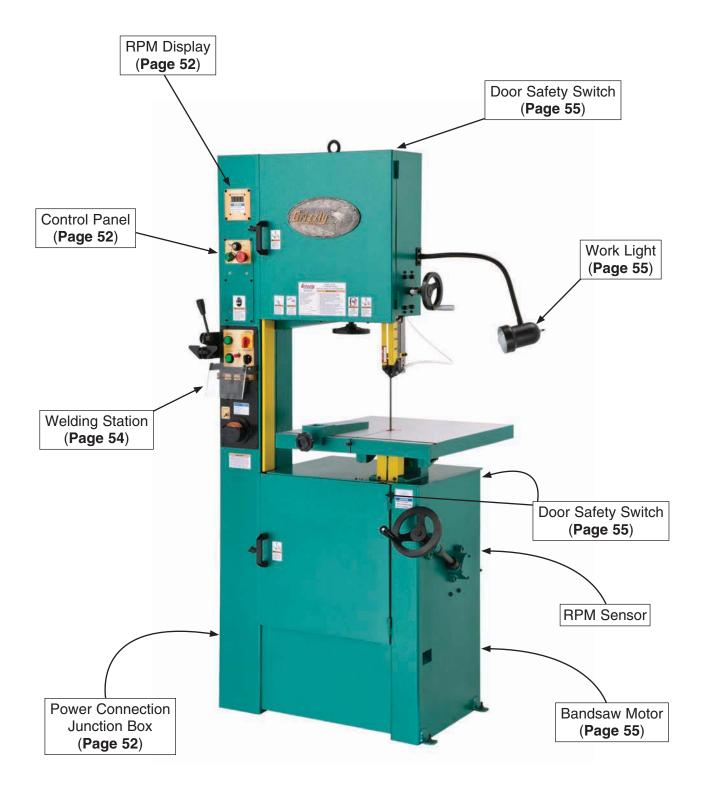
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WHITE

QUOISE

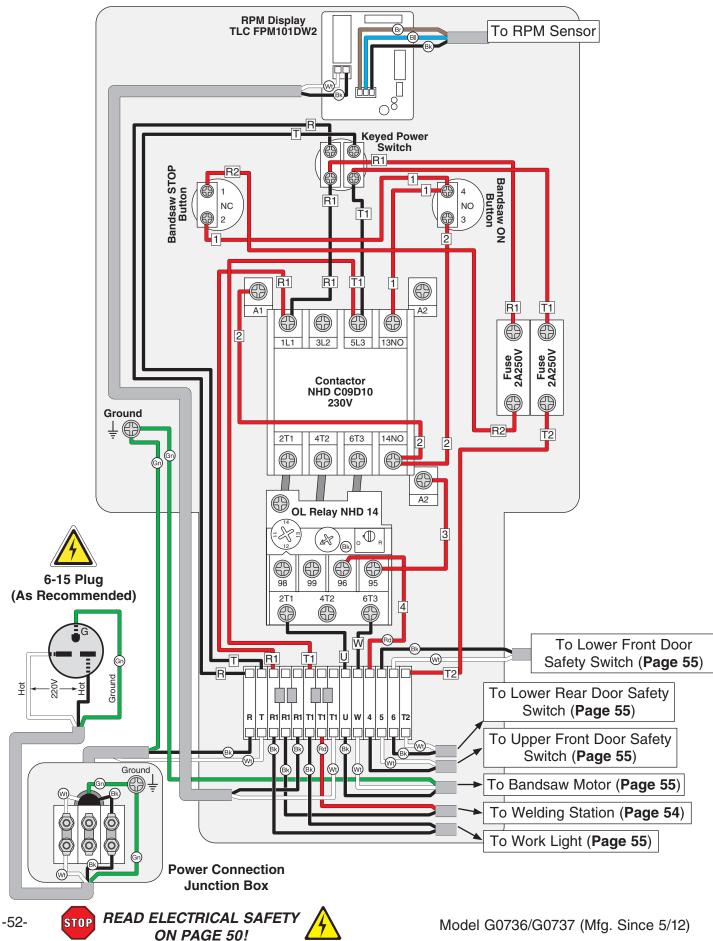
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### **Electrical Wiring Overview**

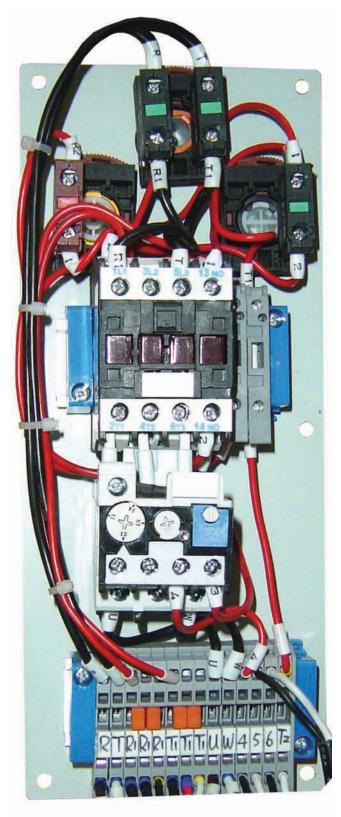




### **Control Panel Wiring Diagram**



### **Control Panel Wiring** Photo



### **Welding Station** Wiring Photo

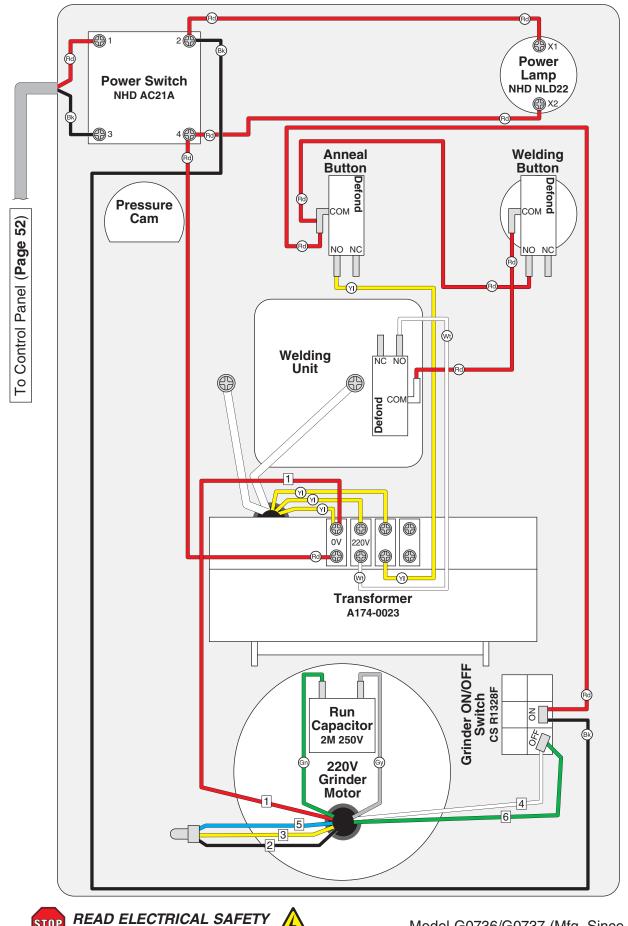








### **Welding Station Wiring Diagram**



4

ON PAGE 50!

STOP

## **Additional Component Wiring Diagrams**

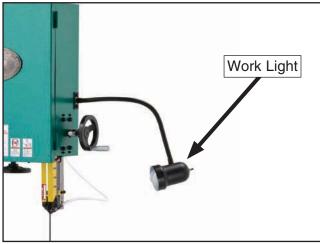


Figure 64. Work light.

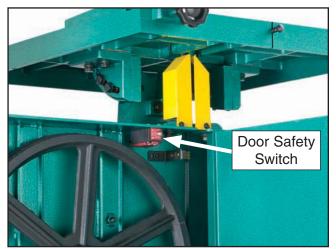
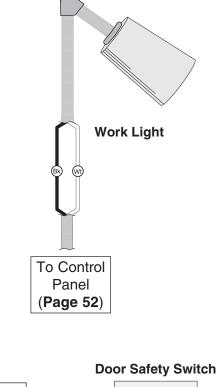
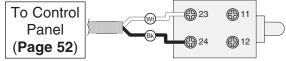


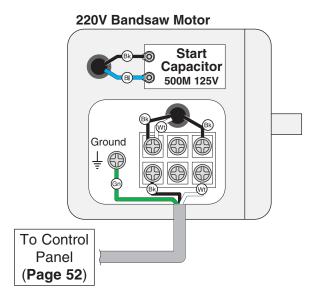
Figure 65. Door safety switch.



Figure 66. Bandsaw motor wiring.







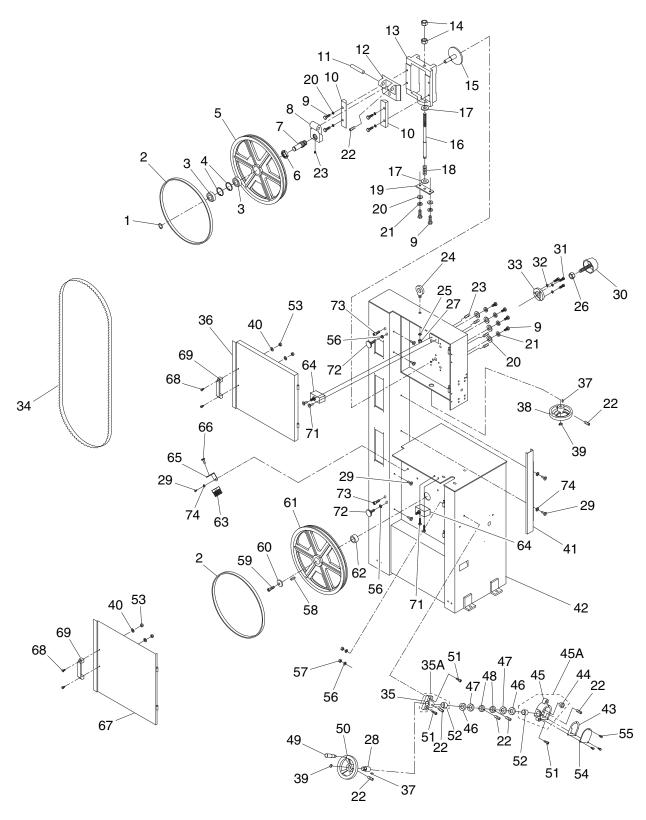
READ ELECTRICAL SAFETY

ON PAGE 50!



## **SECTION 9: PARTS**

### **Cabinet & Wheels**



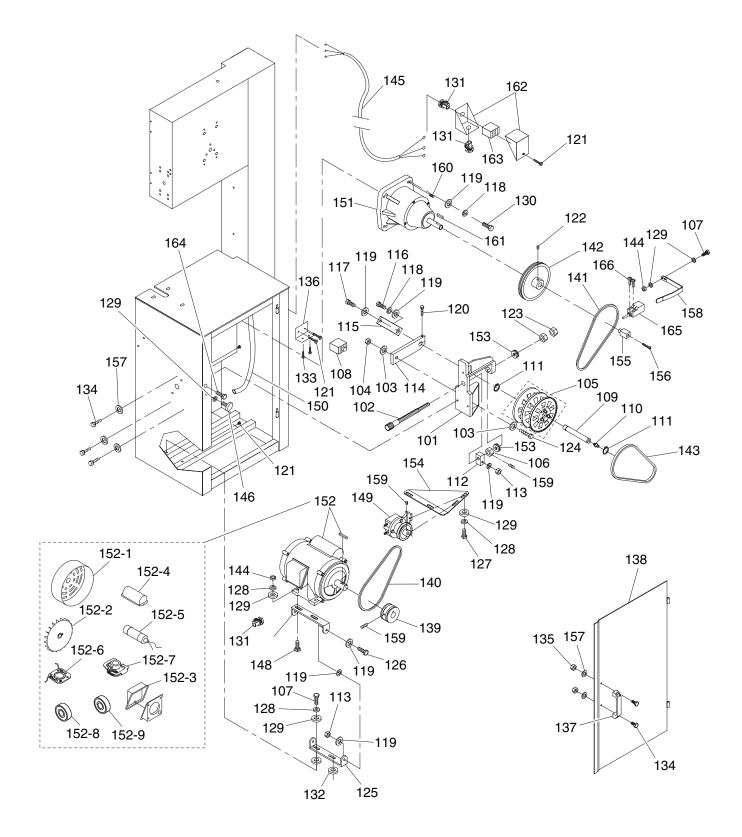


### **Cabinet & Wheels Parts List**

REF	PART #	DESCRIPTION
1	PR11M	EXT RETAINING RING 25MM
2	P0736002	WHEEL TIRE, RUBBER (G0736)
2	P0737002	WHEEL TIRE, RUBBER (G0737)
3	P6005ZZ	BALL BEARING 6005ZZ
4	PR25M	INT RETAINING RING 47MM
5	P0736005	UPPER WHEEL (G0736)
5	P0737005	UPPER WHEEL (G0737)
6	P0736006	WHEEL SHAFT LOCK COLLAR
7	P0736007	UPPER WHEEL SHAFT
8	P0736008	PIVOT BRACKET
9	PB01M	HEX BOLT M10-1.5 X 30
10	P0736010	SLIDE BRACKET GUIDE
11	P0736011	PIVOT BRACKET AXLE
12	P0736012	SLIDE BLOCK
13	P0736013	SLIDE BLOCK HOUSING
14	PN27	HEX NUT 5/8-11 LH
15	P0736015	BLADE TRACKING RAM
16	P0736016	TENSIONING LEADSCREW
17	P0736017	SPACER
18	P0736018	COMPRESSION SPRING
19	P0736019	SPRING RETAINING PLATE
20	PW04M	FLAT WASHER 10MM
21	PLW06M	LOCK WASHER 10MM
22	PSS02M	SET SCREW M6-1 X 6
23	PSS20M	SET SCREW M8-1.25 X 8
24	P0736024	LIFTING EYE BOLT M12-1.75 X 20
25	PW06M	FLAT WASHER 12MM
26	PN09	HEX NUT 5/8-18
27	PN09M	HEX NUT M12-1.75
28	P0736028	HANDWHEEL SHAFT
29	PS05M	PHLP HD SCR M58 X 8
30	P0736030	TRACKING KNOB BOLT 5/8-18 X 2-1/2
31	PB07M	HEX BOLT M8-1.25 X 25
32	PLW04M	LOCK WASHER 8MM
33	P0736033	KNOB BOLT BRACKET
34	P0736034	BLADE 120" X 1/2" X 0.25" 14 RAKER
34	P0737034	BLADE 140" X 1/2" X 0.25" 14 RAKER
35A	P0736035A	PILLOW BLOCK ASSY W/BUSHING
35	P0736035	PILLOW BLOCK
36	P0736036	UPPER WHEEL DOOR (G0736)
36	P0737036	UPPER WHEEL DOOR (G0737)

REF	PART #	DESCRIPTION
37	PK08M	KEY 5 X 5 X 16
38	P0736038	TENSIONING HANDWHEEL
39	PR07M	EXT RETAINING RING 18MM
40	PW03M	FLAT WASHER 6MM
41	P0736041	BLADE GUARD
42	P0736042	CABINET (G0736)
42	P0737042	CABINET (G0737)
43	P0736043	GEARBOX COVER GASKET
44	P0736044	FLANGE BUSHING
45A	P0736045A	GEARBOX HOUSING ASSEMBLY
45	P0736045	GEARBOX HOUSING
46	P51104	THRUST BEARING 51104
47	P0736047	DUST DEFLECTOR
48	P0736048	LOCK COLLAR
49	P0736049	HANDWHEEL HANDLE
50	P0736050	VARIABLE SPEED HANDWHEEL
51	PCAP31M	CAP SCREW M8-1.25 X 25
52	P0736052	BUSHING
53	PN01M	HEX NUT M6-1
54	P0736054	GEARBOX HOUSING COVER
55	PB96M	HEX BOLT M58 X 10
56	PW01M	FLAT WASHER 8MM
57	PN03M	HEX NUT M8-1.25
58	PK28M	KEY 7 X 7 X 30
59	PCAP197M	CAP SCREW M10-1.5 X 25 LH
60	P0736060	WHEEL FLAT WASHER 10MM
61	P0736061	LOWER WHEEL (G0736)
61	P0737061	LOWER WHEEL (G0737)
62	P0736062	BUSHING
63	P0736063	CHIP BRUSH
64	P0736064	DOOR SWITCH SHINOZAKI AZ-100-IT
65	P0736065	CHIP BRUSH BRACKET
66	PHTEK36M	TAP SCREW M5 X 8
67	P0736067	LOWER WHEEL DOOR (G0736)
67	P0737067	LOWER WHEEL DOOR (G0737)
68	PB83M	HEX BOLT M6-1 X 16
69	P0736069	DOOR HANDLE
71	PS25M	PHLP HD SCR M47 X 35
72	P0736072	DOOR LOCK
73	PCAP03M	CAP SCREW M58 X 8
74	PW02M	FLAT WASHER 5MM

### **Motor & Drive System**





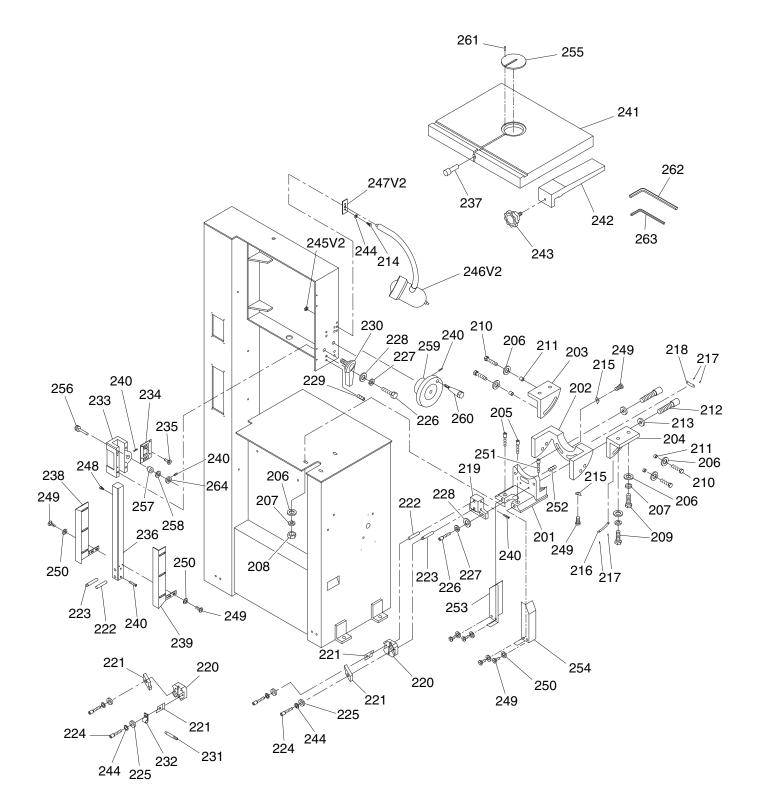
### **Motor & Drive System Parts List**

REF	PART #	DESCRIPTION
101	P0736101	PULLEY BRACKET
102	P0736102	VARIABLE SPEED LEADSCREW
103	PW01	FLAT WASHER 1/2
104	PLN06	LOCK NUT 1/2-13
105	P0736105	VARIABLE SPEED PULLEY ASSY
106	P0736106	LEADSCREW LOCK NUT
107	PB09M	HEX BOLT M8-1.25 X 20
108	P0736064	DOOR SWITCH SHINOZAKI AZ-100-IT
109	P0736109	PULLEY SHAFT
110	PZERK2	GREASE FITTING, STRAIGHT M6-1 X 5
111	PR09M	EXT RETAINING RING 20MM
112	P0736112	LEADSCREW BLOCK
113	PLN05M	LOCK NUT M10-1.5
114	P0736114	PULLEY SHAFT PIVOT ARM
115	P0736115	GEAR SHAFT PIVOT ARM
116	PB74M	HEX BOLT M10-1.5 X 20
117	PB116M	HEX BOLT M10-1.5 X 45
118	PLW06M	LOCK WASHER 10MM
119	PW04M	FLAT WASHER 10MM
120	PB20M	HEX BOLT M8-1.25 X 35
121	PS05M	PHLP HD SCR M58 X 8
122	PSS20M	SET SCREW M8-1.25 X 8
123	PN09M	HEX NUT M12-1.75
124	PB72	HEX BOLT 1/2-13 X 2
125	P0736125	MOTOR MOUNT PIVOT BRACKET
126	PB14M	HEX BOLT M10-1.5 X 35
127	PB87M	HEX BOLT M8-1.25 X 15
128	PLW04M	LOCK WASHER 8MM
129	PW01M	FLAT WASHER 8MM
130	PB31M	HEX BOLT M10-1.5 X 40
131	P0736131	STRAIGHT LT STRAIN RELIEF 1/2" NPT
132	P0736132	SPACER RUBBER
133	PS60M	PHLP HD SCR M58 X 30
134	PB83M	HEX BOLT M6-1 X 16
135	PN01M	HEX NUT M6-1
136	P0736136	SAFETY SWITCH BRACKET
137	P0736069	DOOR HANDLE
138	P0736138	MOTOR ACCESS DOOR (G0736)
138	P0737138	MOTOR ACCESS DOOR (G0737)
139	P0736139	MOTOR PULLEY

140         F           141         F           142         F           143         F           144         F           145         F           146         F           148         F	PART # P0736140 P0736141 P0736142 P0736143 PN03M P0736145 P0736072 PCB35M	DESCRIPTION COGGED V-BELT M-19 COGGED V-BELT 17-360 SPEED REDUCTION PULLEY COGGED V-BELT 17-320 HEX NUT M8-1.25 CONTROL PANEL CORD 14G 3C DOOR LOCK
141         F           142         F           143         F           144         F           145         F           146         F           148         F	P0736141 P0736142 P0736143 PN03M P0736145 P0736072	COGGED V-BELT 17-360 SPEED REDUCTION PULLEY COGGED V-BELT 17-320 HEX NUT M8-1.25 CONTROL PANEL CORD 14G 3C
142 F 143 F 144 F 145 F 146 F 148 F	P0736142 P0736143 PN03M P0736145 P0736072	SPEED REDUCTION PULLEY COGGED V-BELT 17-320 HEX NUT M8-1.25 CONTROL PANEL CORD 14G 3C
143     F       144     F       145     F       146     F       148     F	P0736143 PN03M P0736145 P0736072	COGGED V-BELT 17-320 HEX NUT M8-1.25 CONTROL PANEL CORD 14G 3C
144 P 145 P 146 P 148 P	PN03M P0736145 P0736072	HEX NUT M8-1.25 CONTROL PANEL CORD 14G 3C
145 F 146 F 148 P	P0736145 P0736072	CONTROL PANEL CORD 14G 3C
146 F 148 F	P0736072	
148 F		DOORLOCK
	CB32IN	
	20700110	CARRIAGE BOLT M8-1.25 X 35
-	P0736149	AIR PUMP ASSEMBLY
	P0736150	AIR HOSE 6.6 X 10 X 2200MM (G0736)
	P0737150	AIR HOSE 6.6 X 10 X 2400MM (G0737)
	P0736151	REDUCTION GEARBOX (G0736)
-	P0737151	REDUCTION GEARBOX (G0737)
	P0736152	MOTOR 1-1/2HP 220V 1PH W/KEY (G0736)
152 F	P0737152	MOTOR 2HP 220V 1PH W/KEY (G0737)
152-1 P	20736152-1	MOTOR FAN COVER
152-2 P	P0736152-2	MOTOR FAN
	P0736152-3	MOTOR JUNCTION BOX
	P0736152-4	CAPACITOR COVER
152-5 F	P0736152-5	S CAPACITOR 400M 250V (G0736)
152-5 F	P0737152-5	S CAPACITOR 500M 250V (G0737)
152-6 P	P0736152-6	CONTACT PLATE 5/8"ID
152-7 P	P0736152-7	CENTRIFUGAL SWITCH 1725RPM 5/8"ID
	P6203ZZ	BALL BEARING 6203ZZ
152-9 P	P6202ZZ	BALL BEARING 6202ZZ
	P51101	THRUST BEARING 51101
154 P	P0736154	AIR PUMP MOUNTING BRACKET
155 P	P0736155	SPEED SENSOR TARGET
	PCAP48M	CAP SCREW M6-1 X 35
	PW03M	FLAT WASHER 6MM
	P0736158	SPEED SENSOR BRACKET
159 P	PSS02M	SET SCREW M6-1 X 6
160 P	PSS09M	SET SCREW M8-1.25 X 20
161 P	PK180M	KEY 7 X 7 X 38
162 P	P0736162	POWER WIRING JUNCTION BOX
	P0736163	TERMINAL BLOCK 6P
	PCAP68M	CAP SCREW M6-1 X 8
	P0736165	SPEED SENSOR BAKS DA-1805NO
	PS13M	PHLP HD SCR M35 X 20



### **Table & Guides**



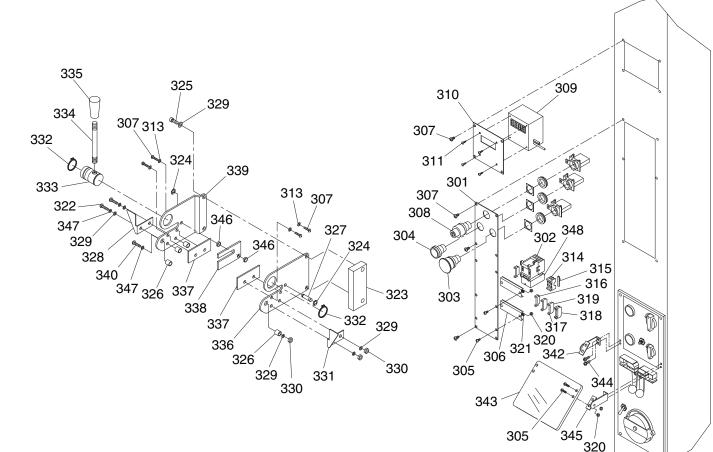


### **Table & Guides Parts List**

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
201	P0736201	TRUNNION SUPPORT	233	P0736233	GUIDE POST BRACKET
202	P0736202	TRUNNION	234	P0736234	GUIDE POST BRACKET COVER
203	P0736203	LEFT TABLE BRACKET	235	PFH30M	FLAT HD SCR M58 X 8
204	P0736204	RIGHT TABLE BRACKET	236	P0736236	GUIDE POST
205	PCAP64M	CAP SCREW M10-1.5 X 25	237	P0736237	TABLE PIN
206	PW04M	FLAT WASHER 10MM	238	P0736238	LEFT BLADE GUARD
207	PLW06M	LOCK WASHER 10MM	239	P0736239	RIGHT BLADE GUARD
208	PN02M	HEX NUT M10-1.5	240	PSS02M	SET SCREW M6-1 X 6
209	PB01M	HEX BOLT M10-1.5 X 30	241	P0736241	TABLE
210	PB116M	HEX BOLT M10-1.5 X 45	242	P0736242	FENCE
211	P0736211	BUSHING	243	P0736243	LOCK KNOB BOLT 1/2-12 X 1-1/2
212	PCAP119M	CAP SCREW M12-1.75 X 55	244	PLW03M	LOCK WASHER 6MM
213	PW06M	FLAT WASHER 12MM	245V2	PN52	THIN HEX NUT 3/8-24
214	PB02M	HEX BOLT M6-1 X 12	246V2	P0736246V2	WORK LAMP ASSY 220V 3/8"-24 V2.06.12
215	P0736215	POINTER	247V2	P0736247V2	LAMP BRACKET 3/8" SLOT V2.06.12
216	P0736216	FORWARD-BACK TILT SCALE	248	PCAP26M	CAP SCREW M6-1 X 12
217	PRIV009M	STEEL FLUTED RIVET 2 X 6MM	249	PS05M	PHLP HD SCR M58 X 8
218	P0736218	LEFT-RIGHT TILT SCALE	250	PW02M	FLAT WASHER 5MM
219	P0736219	LOWER BLADE SUPPORT BRACKET	251	PCAP70M	CAP SCREW M10-1.5 X 45
220	P0736220	BLADE GUIDE BRACKET	252	PSS01M	SET SCREW M6-1 X 10
221	P0736221	BLADE GUIDE	253	P0736253	LOWER LEFT BLADE GUARD
222	P0736222	GUIDE BRACKET SUPPORT ROD	254	P0736254	LOWER RIGHT BLADE GUARD
223	P0736223	BLADE SUPPORT ROD	255	P0736255	TABLE INSERT
224	PCAP06M	CAP SCREW M6-1 X 25	256	P0736256	PINION SHAFT
225	PW03M	FLAT WASHER 6MM	257	P0736257	SHAFT SLEEVE
226	PCAP13M	CAP SCREW M8-1.25 X 30	258	PW28M	FLAT WASHER 13MM
227	PLW04M	LOCK WASHER 8MM	259	P0736259	GUIDE POST HANDWHEEL
228	PW01M	FLAT WASHER 8MM	260	P0736260	HANDWHEEL HANDLE 3/8-16 X 3-1/4
229	PSS06M	SET SCREW M8-1.25 X 16	261	PRP18M	ROLL PIN 4 X 12
230	P0736230	GUIDE POST LOCK LEVER	262	PAW10M	HEX WRENCH 10MM
231	P0736231	AIR NOZZLE	263	PAW05M	HEX WRENCH 5MM
232	P0736232	NOZZLE CLAMP	264	P0736264	LOCK COLLAR



### **Control Panel & Blade Shear**



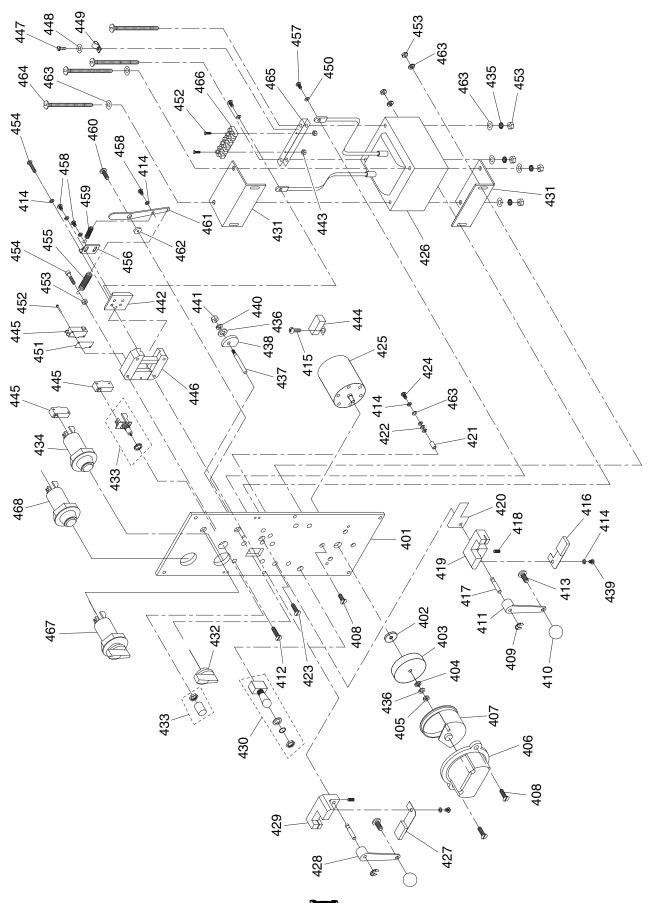
REF	PART #	DESCRIPTION
301	P0736301	CONTROL PANEL
302	P0736302	CONTACTOR NHD C-09D10 230V
303	P0736303	STOP BUTTON NHD NPH-H CB-01
304	P0736304	ON BUTTON NHD NPB-F CB-10
305	PS02M	PHLP HD SCR M47 X 12
306	P0736306	MOUNTING BRACKET
307	PS05M	PHLP HD SCR M58 X 8
308	P0736308	POWER SWITCH W/KEY NHD NSS-K CB-10
309	P0736309	DIGITAL SPEED READOUT TLC FPM101DW2
310	P0736310	READOUT PANEL
311	PHTEK30M	TAP SCREW M3 X 6
313	PLW01M	LOCK WASHER 5MM
314	P0736314	FUSE HOLDER NHD HTF1
315	P0736315	FUSE 2A 250V
316	P0736316	BRACKET END STOP
317	P0736317	TERMINAL BLOCK 2P
318	P0736318	TERMINAL BLOCK 4P
319	P0736319	GROUND BLOCK 2P
320	PN04M	HEX NUT M47
321	PTLW01M	EXT TOOTH WASHER 4MM
322	PS47M	PHLP HD SCR M6-1 X 25
323	P0736323	MOUNTING SPACER
324	PEC09M	E-CLIP 6MM
325	PCAP06M	CAP SCREW M6-1 X 25

REF	PART #	DESCRIPTION
326	P0736326	SPACER
327	P0736327	CAPTIVE PIN
328	P0736328	LEFT ALIGNMENT BRACKET
329	PW03M	FLAT WASHER 6MM
330	PN01M	HEX NUT M6-1
331	P0736331	RIGHT ALIGNMENT BRACKET
332	PR11M	EXT RETAINING RING 25MM
333	P0736333	SHEAR CAM
334	P0736334	STUD-DE 3/8-16 X 3-3/4 1/2
335	P0736335	HANDLE KNOB 3/8-16
336	P0736336	RIGHT SHEAR BRACKET
337	P0736337	LOWER SHEAR BLADE
338	P0736338	UPPER SHEAR BLADE
339	P0736339	LEFT SHEAR BRACKET
340	PS81M	PHLP HD SCR M6-1 X 40
341	PS11M	PHLP HD SCR M6-1 X 16
342	P0736342	LEFT GUARD BRACKET
343	P0736343	WELDING GUARD
344	PS53	PHLP HD SCR 10-32 X 5/16
345	P0736345	RIGHT GUARD BRACKET
346	P0736346	SPACER
347	PLW03M	LOCK WASHER 6MM
348	P0736348	OL RELAY NHD NTH-11 8-11A (G0736)
348	P0737348	OL RELAY NHD NTH-14 11-14A (G0737)

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### **Welding Station**



### **Welding Station Parts List**

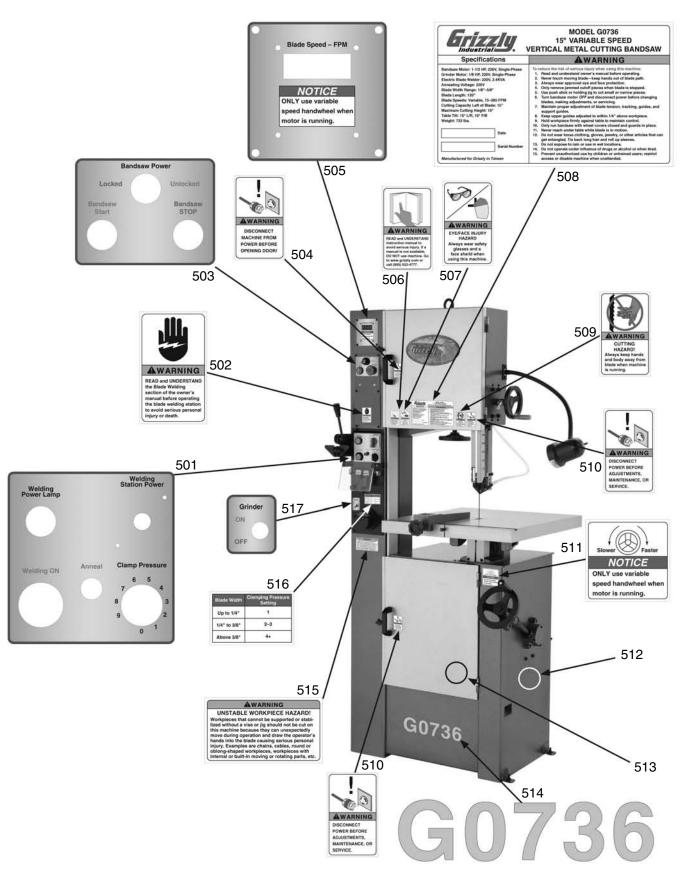
REF	PART #	DESCRIPTION
401	P0736401	FRONT PANEL
402	P0736402	SPACER
403	P0736403	GRINDING WHEEL A60 65 X 16 X 7MM
404	PW03M	FLAT WASHER 6MM
405	PN01M	HEX NUT M6-1
406	P0736406	GRINDER COVER
407	P0736407	GRINDER GUARD
408	PFH08	FLAT HD SCR 10-24 X 1/2
409	PEC09M	E-CLIP 6MM
410	P0736410	ROUND KNOB M6-1
411	P0736411	RIGHT CLAMPING LEVER
412	PFH30M	FLAT HD SCR M58 X 8
413	PS11M	PHLP HD SCR M6-1 X 16
414	PLW01M	LOCK WASHER 5MM
415	PS18	PHLP HD SCR 10-24 X 1/4
416	P0736416	RIGHT MOVABLE CLAMP
417	P0736417	ECCENTRIC SHAFT
418	PSS02M	SET SCREW M6-1 X 6
419	P0736419	RIGHT STATIONARY CLAMP
420	P0736420	CLAMP INSULATION PLATE
421	P0736421	INSULATING SPACER 5MM
422	P0736422	INSULATING FLAT WASHER 5MM
423	PFH05M	FLAT HD SCR M58 X 12
424	PCAP24M	CAP SCREW M58 X 16
425	P0736425	GRINDING MOTOR 1/8HP 110/220V 1PH
426	P0736426	TRANSFORMER A174-0023 2.4KVA 0/220V
427	P0736427	LEFT MOVABLE CLAMP
428	P0736428	LEFT CLAMPING LEVER
429	P0736429	LEFT STATIONARY CLAMP
430	P0736430	ON/OFF SWITCH R13-28F
431	P0736431	TRANSFORMER MOUNTING BRACKET
432	P0736432	PRESSURE ADJUSTMENT KNOB
433	P0736433	ANNEAL BUTTON ASSY DEFOND 15.1A 250V
434	P0736434	WELD BUTTON ASSY YENOX YCL1G28

REF	PART #	DESCRIPTION
435	PTLW02M	EXT TOOTH WASHER 5MM
436	PLW03M	LOCK WASHER 6MM
437	P0736437	PRESSURE SHAFT
438	P0736438	PRESSURE CAM
439	PS19M	PHLP HD SCR M58 X 6
440	PW03M	FLAT WASHER 6MM
441	PN01M	HEX NUT M6-1
442	P0736442	PRESSURE GUIDE BLOCK
443	PN07M	HEX NUT M35
444	P0736444	S CAPACITOR 2M 250V
445	P0736445	SWITCH DEFOND 125/250V
446	P0736446	PRESSURE GUIDE CASTING
447	PS07M	PHLP HD SCR M47 X 8
448	PW05M	FLAT WASHER 4MM
449	P0736449	CORD CLAMP 1/2"
450	P0736450	FLAT WASHER 5MM BRASS
451	P0736451	SWITCH INSULATOR
452	PS13M	PHLP HD SCR M35 X 20
453	PN06M	HEX NUT M58
454	PCAP24M	CAP SCREW M58 X 16
455	P0736455	LONG EXTENSION SPRING
456	P0736456	SPRING BRACKET
457	P0736457	PHLP HD SCR M5-8 X 10 BRASS
458	PS05M	PHLP HD SCR M58 X 8
459	P0736459	SHORT EXTENSION SPRING
460	PS12	PHLP HD SCR 1/4-20 X 5/8
461	P0736461	TENSION ARM
462	P0736462	TENSION ARM FLAT WASHER 1/4"
463	PW02M	FLAT WASHER 5MM
464	P0736464	PHLP HD SCR M58 X 65
465	P0736465	TERMINAL BLOCK BRACKET
466	P0736466	TRANSFORMER TERMINAL BLOCK
467	P0736467	WELDER ON/OFF SWITCH NHD NCS-S4
468	P0736468	POWER LAMP NHD NLD-22



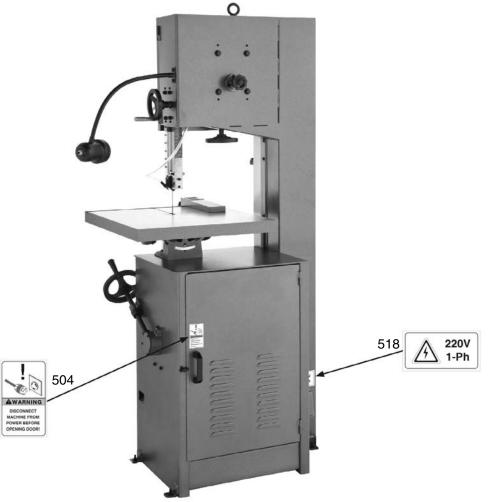


### **Machine Labels (Front View)**





### Machine Labels (Rear View)



REF	PART #	DESCRIPTION
501	P0736501	WELDING CONTROL PANEL LABEL
502	P0736502	READ WELDING INSTRUCTIONS LABEL
503	P0736503	BANDSAW CONTROL PANEL LABEL
504	P0736504	DISCONNECT POWER-DOOR LABEL
505	P0736505	DIGITAL SPEED READOUT LABEL
506	PLABEL-12C	READ MANUAL LABEL
507	P0736507	SAFETY GLASSES-FACE SHIELD LABEL
508	P0736508	MACHINE ID LABEL (G0736)
508	P0737508	MACHINE ID LABEL (G0737)
509	PLABEL-19B	CUTTING HAZARD LABEL

REF	PART #	DESCRIPTION
510	PLABEL-63A	DISCONNECT POWER-SERVICE LABEL
511	P0736511	HANDWHEEL NOTICE LABEL
512	PPAINT-1	GRIZZLY GREEN TOUCH-UP PAINT
513	PPAINT-11	GRIZZLY PUTTY TOUCH-UP PAINT
514	P0736514	MODEL NUMBER LABEL (G0736)
514	P0737514	MODEL NUMBER LABEL (G0737)
515	P0736515	UNSTABLE WORKPIECE HAZARD LABEL
516	P0736516	CLAMPING PRESSURE CHART LABEL
517	P0736517	GRINDER ON/OFF LABEL
518	P0736518	220V 1PH ELECTRICITY LABEL

## **WARNING**

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine MUST replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.



### Grizzly WARRANTY CARD

	ne		
	eet		7:
City			
		_ Email	
		_ Order #	
		n a voluntary basis. It will be used for r urse, all information is strictly confid	
1.	How did you learn about us? Advertisement Card Deck	Friend Website	Catalog Other:
2.	Which of the following maga	zines do you subscribe to?	
	<ul> <li>Cabinetmaker &amp; FDM</li> <li>Family Handyman</li> <li>Hand Loader</li> <li>Handy</li> <li>Home Shop Machinist</li> <li>Journal of Light Cont.</li> <li>Live Steam</li> <li>Model Airplane News</li> <li>Old House Journal</li> <li>Popular Mechanics</li> </ul>	<ul> <li>Popular Science</li> <li>Popular Woodworking</li> <li>Precision Shooter</li> <li>Projects in Metal</li> <li>RC Modeler</li> <li>Rifle</li> <li>Shop Notes</li> <li>Shotgun News</li> <li>Today's Homeowner</li> <li>Wood</li> </ul>	Wooden BoatWoodshop NewsWoodsmithWoodworkWoodworker WestOther:
3.	What is your annual househo \$20,000-\$29,000 \$50,000-\$59,000	old income? \$30,000-\$39,000 \$60,000-\$69,000	\$40,000-\$49,000 \$70,000+
4.	What is your age group? 20-29 50-59	30-39 60-69	40-49 70+
5.	How long have you been a v 0-2 Years	voodworker/metalworker? 2-8 Years8-20 Ye	ears20+ Years
6.	How many of your machines	or tools are Grizzly? 3-56-9	10+
7.	Do you think your machine r	epresents a good value?	_YesNo
8.	Would you recommend Grizz	zly Industrial to a friend?	_YesNo
9.	Would you allow us to use you note: We never use names	our name as a reference for Grizzly <i>more than 3 times.</i>	•
10	Comments:		

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GRIZZLY INDUSTRIAL, INC. P.O. BOX 2069 BELLINGHAM, WA 98227-2069

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Send a Grizzly Catalog to a friend:

Name		
Street		
City	_State	_Zip

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

# **WARRANTY & RETURNS**

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.



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